



# *San Juan Resource Management Plan*

PROPOSED RESOURCE MANAGEMENT PLAN  
FINAL ENVIRONMENTAL IMPACT STATEMENT  
VOLUME 1

September 1987



U. S. Department of the Interior  
Bureau of Land Management  
San Juan Resource Area, Moab District



## **FOREWORD**

### **YOUR PUBLIC LANDS**

The Bureau of Land Management (BLM), an agency of the Department of the Interior, is responsible for administering the public domain lands in the West. These are lands held by the Federal Government for multiple use by American citizens.

To guide the use of these lands, and to provide wise management of the public's natural resources, BLM develops land-use plans. These plans provide an agreement between the government and the citizens on how the public lands and resources will be managed, allocated, and used.

The San Juan Resource Area, in BLM's Moab District in southeastern Utah, is now developing such a plan. The San Juan Resource Management Plan (RMP) will guide management of the public lands and resources administered by the resource area.

BLM has used an environmental impact statement (EIS) to determine feasible alternatives for managing the land, weigh the consequences of these possibilities, and select an RMP that is responsive to the needs of both the public and the natural resources present. The proposed RMP represents a balance between protection and production of those resources.

### **HOW TO USE THIS DOCUMENT**

The San Juan proposed RMP and final EIS is bound in two volumes. Volume 1 contains the proposed RMP and part of the final EIS; volume 2, the remainder of the final EIS.

The proposed RMP presents decisions arranged in the numerical order of the programs BLM uses to organize funding and personnel. For each program, the management objective, general guidance, and specific management prescriptions (including land-use allocations, special management designations, and resource conditions) are given. The proposed decisions also encompass special conditions for use of the public lands and resources. The proposed plan would be implemented over a 10-year period and includes an implementation schedule and monitoring plan. The pocket map of proposed land-use allocations is part of the proposed RMP.

The final EIS is divided into two main sections: revisions and changes to the draft RMP/EIS (volume 1) and public and agency comments on the draft and BLM's responses to those comments (volume 2). Revisions or changes have been made either in response to comments from the public or other agencies, to incorporate corrections or clarifications from the EIS team, or because of changes in direction initiated by management or resulting from policy changes.

The San Juan final EIS has been prepared using an abbreviated format. This document contains only the changes and revisions to the draft EIS; the complete text of the final EIS has not been printed. Please refer to the draft EIS (May 1986); where no changes or revisions are indicated, the text of the final EIS is the same as the draft EIS as originally printed.



# United States Department of the Interior

BUREAU OF LAND MANAGEMENT  
Moab District

September 1987

Dear Reader:

This two-volume set presents the both proposed resource management plan (RMP) and the final environmental impact statement (EIS) for the San Juan Resource Area (SJRA) within the Moab District in southeastern Utah. The proposed RMP states how BLM believes the 1.8 million acres of public lands in SJRA should be managed to attain a balance between protection and production of natural resources within the framework of multiple use.

The draft EIS was distributed for public and other-agency review in May 1986. BLM received over 175 letters in response, of which 112 have been printed in this book. The remainder either were procedural requests or were received too late to be included. BLM appreciates the amount of time readers devoted to this review, as well as the thought and concern that went into the letters received. Most of the letters requested more areas of critical environmental concern. These requests were accommodated wherever possible.

BLM believes the proposed RMP incorporates the best ideas from the draft EIS and from the comment letters; as a result, stewardship of public lands and resources will benefit.

Again, thank you for your interest and involvement in BLM's planning process.

Sincerely,

  
District Manager

PROPOSED RESOURCE MANAGEMENT PLAN and FINAL ENVIRONMENTAL IMPACT STATEMENT

FOR THE SAN JUAN RESOURCE AREA

MOAB DISTRICT

UTAH


Prepared by


THE BUREAU OF LAND MANAGEMENT

U.S. DEPARTMENT OF THE INTERIOR

September 1987

  
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PROPOSED RESOURCE MANAGEMENT PLAN/FINAL ENVIRONMENTAL IMPACT STATEMENT  
FOR THE SAN JUAN RESOURCE AREA, MOAB DISTRICT, UTAH

( ) Draft

Final (X)

Lead Agency

U.S. Department of the Interior, Bureau of Land Management

Type of Action

(X) Administrative

Legislative ( )

Abstract

This proposed resource management plan and final environmental impact statement (RMP/EIS) addresses alternatives for managing approximately 1.8 million acres of public land administered by the San Juan Resource Area, Moab District, Bureau of Land Management, in San Juan County, Utah. It is published using an abbreviated format and is intended to be used in conjunction with the draft San Juan RMP/EIS dated May 1986. The final EIS contains changes to the text of the draft, the comments received on the draft, and the BLM response to each comment.

The document describes and analyzes the environmental consequences that would be expected to result from implementing each of the five alternatives. Each alternative has a different management emphasis and contains different land use prescriptions.

The document also contains the proposed RMP for the San Juan Resource Area. When the RMP is adopted in final form, it will provide comprehensive multiple use guidance for allocating and managing public resources throughout the San Juan Resource Area.

Protest

The proposed RMP is subject to protest from any adversely affected party, under the provisions of 43 CFR 1610.5-2. Protests must be received by the Director of the BLM within 30 days of publication of this document. Address protests to:

Director, Bureau of Land Management  
18th and C Streets, N.W.  
Washington, D.C. 20240

# TABLE OF CONTENTS

## THE PROPOSED RESOURCE MANAGEMENT PLAN

PREFACE.....	xiii
--------------	------

### CHAPTER 1, INTRODUCTION TO THE PLAN

Overview.....	1
Purpose and Need.....	1
The Resource Area.....	1
Implementation.....	2
Conformance Requirements.....	2
Valid Existing Rights.....	2
Further Planning or Environmental Analysis.....	2
Implementation Priorities.....	2
Appeal Rights.....	2
Monitoring and Evaluation.....	8
Plan Maintenance.....	8
Modifying the Plan.....	8
Relationship to Other BLM Planning Levels and Studies.....	8
Public Involvement and Inter- governmental/Interagency Coordination.....	8

### CHAPTER 2, RESOURCE MANAGEMENT PROGRAM DECISIONS

Overview.....	9
Resource Management Plan Goals.....	9
4111 Oil and Gas Management.....	9
Management Objective.....	9
General Management Guidance.....	9
Specific Management Prescriptions..	10
4113 Geothermal Management.....	11
Management Objective.....	11
General Management Guidance.....	11
Specific Management Prescriptions..	11
4121 Coal Management.....	11
Management Objective.....	11
General Management Guidance.....	11
Specific Management Prescriptions..	11

4122 Oil Shale/Tar Sand Management...	12
Management Objective.....	12
General Management Guidance.....	12
Specific Management Prescriptions..	12
4131 Mineral Materials Management....	12
Management Objective.....	12
General Management Guidance.....	12
Specific Management Prescriptions..	12
4132 Mining Law Administration.....	15
Management Objective.....	15
General Management Guidance.....	15
Specific Management Prescriptions..	16
4133 Mineral Management (Nonenergy Leasables).....	16
Management Objective.....	16
General Management Guidance.....	17
Specific Management Prescriptions..	17
4211 Rights-of-Way.....	17
Management Objective.....	17
General Management Guidance.....	17
Specific Management Prescriptions..	19
4212 Lands.....	19
Management Objective.....	19
General Management Guidance.....	19
Specific Management Prescriptions..	20
4220 Withdrawal Processing and Review.....	25
Management Objective.....	25
General Management Guidance.....	25
Specific Management Prescriptions..	25
4311 Forest Management.....	25
Management Objective.....	25
General Management Guidance.....	25
Specific Management Prescriptions..	25

4312 Forest Development.....	26	Butler Wash ACEC.....	57
Management Objective.....	26	Cedar Mesa ACEC.....	58
General Management Guidance.....	26	Dark Canyon ACEC.....	59
Specific Management Prescriptions..	26	Hovenweep ACEC.....	60
4322 Grazing Management.....	26	Indian Creek ACEC.....	60
Management Objective.....	26	Lavender Mesa ACEC.....	61
General Management Guidance.....	27	Scenic Highway Corridor ACEC.....	62
Specific Management Prescriptions..	44	Shay Canyon ACEC.....	62
4331 Cultural Resource Management....	44	Special Conditions for Areas Other than	
Management Objective.....	44	ACECs.....	63
General Management Guidance.....	44	Floodplains and Riparian/Aquatic	
Specific Management Prescriptions..	46	Areas.....	63
4332 Wilderness Management.....	46	Sensitive Soils Areas.....	63
Management Objective.....	46	Sensitive Slopes.....	64
General Management Guidance.....	46	Seasonal Wildlife Protection	
Specific Management Prescriptions..	46	Areas.....	64
4333 Recreation Resources		Identified Mesa Tops, Bighorn	
Management.....	49	Sheep.....	65
Management Objective.....	49	National Register Cultural	
General Management Guidance.....	49	Properties and Archaeologic	
Specific Management Prescriptions..	50	Districts.....	65
4333 Visual Resources Management.....	51	Recreation Opportunity Spectrum	
Management Objective.....	51	Class Areas.....	65
General Management Guidance.....	51	Pearson Canyon Special Recreation	
Specific Management Prescriptions..	51	Management Area.....	67
4341 Soil, Water, and Air		Developed Recreation Sites.....	67
Management.....	51	Existing Land Leases.....	68
Management Objective.....	51	Material Site Rights-of-Way.....	68
General Management Guidance.....	51		
Specific Management Prescriptions..	52	<b>CHAPTER 4, IMPLEMENTATION AND MONITORING</b>	
4342 Hazardous Waste Management.....	52	Overview.....	69
Management Objective.....	52	Using the Resource Management	
General Management Guidance.....	52	Plan.....	69
Specific Management Prescriptions..	52	Implementing the Plan Decisions....	69
4351 Habitat Management.....	52	Monitoring and Evaluation.....	69
Management Objective.....	52	Modifying the Plan.....	70
General Management Guidance.....	52	Anticipated Implementation and	
Specific Management Prescriptions..	53	Monitoring Needs.....	70
4352 Endangered Species Management...	53		
Management Objective.....	53		
General Management Guidance.....	53		
Specific Management Prescriptions..	53		
4360 Fire Management.....	53		
Management Objective.....	53		
General Management Guidance.....	53		
Specific Management Prescriptions..	53		
<b>CHAPTER 3, SPECIAL MANAGEMENT CONDITIONS</b>			
Overview.....	55		
Special Conditions for ACECs.....	56		
Alkali Ridge ACEC.....	56		
Bridger Jack Mesa ACEC.....	56		
		<b>TABLES IN THE PROPOSED RMP</b>	
		<b>Number</b>	<b>Title</b>
			<b>Page</b>
		1 - Previous Management Framework	
		Plans, SJRA.....	1
		2 - Land Surface Administration.....	3
		3 - Management of Mineral Resources....	4
		4 - Management of Grazing and Recreation	
		Resources.....	7
		5 - Material Site Rights-of-Way	
		Granted Prior to the RMP.....	13

<u>Number</u>	<u>Title</u>	<u>Page</u>
6	- Community Pits Existing Prior to the RMP.....	14
7	- Areas Not Open to Mineral Entry Prior to the RMP.....	15
8	- Known Potash Lease Areas.....	18
9	- Classifications and Segregations Made Prior to the RMP.....	20
10	- Tracts Identified for Disposal.....	21
11	- Grazing Actions to be Implemented, by Allotment.....	28
12	- Current and Projected Ecological Condition by Percentage of Allotment.....	35
13	- Cultural Resource Use Zones.....	45
14	- Management of Cultural Resources...	46
15	- Wilderness Review Areas.....	47
16	- Recreation Management Areas.....	49
17	- Anticipated Implementation and Monitoring of RMP Decisions, by Management Program.....	71

**VOLUME 1**  
of the

**FINAL ENVIRONMENTAL IMPACT STATEMENT**

INTRODUCTION TO THE FINAL EIS.....	1-1
<b>REVISIONS TO THE DRAFT</b>	
Revisions to the Summary.....	1-3
Table S-1.....	1-7
Figure S-3.....	1-9
Figure S-4.....	1-11
Revisions to the Introduction.....	1-13
Revisions to Chapter 1.....	1-15
Table 1-2.....	1-17
Revisions to Chapter 2.....	1-19
Table 2-2.....	1-24
Table 2-3.....	1-25
Table 2-4.....	1-27
Table 2-5.....	1-28
Table 2-6.....	1-36
Table 2-7.....	1-38
Table 2-8.....	1-52
Table 2-8A.....	1-54
Table 2-9.....	1-56
Table 2-10.....	1-72
Figure 2-5.....	1-81
Figure 2-6.....	1-83
Figure 2-15.....	1-85

Revisions to Chapter 3.....	1-87
Table 3-3.....	1-92
Table 3-5A.....	1-94
Table 3-9.....	1-95
Table 3-11.....	1-96
Table 3-19.....	1-97
Figure 3-14.....	1-99
Figure 3-18.....	1-101
Revisions to Chapter 4.....	1-103
Alternatives A, B, and C.....	1-103
Table 4-10.....	1-109
Table 4-11.....	1-109
Alternative D.....	1-110
Table 4-12.....	1-114
Table 4-13.....	1-120
Table 4-14.....	1-121
Table 4-15.....	1-121
Alternative E.....	1-123
Table 4-16.....	1-128
Table 4-17.....	1-134
Table 4-18.....	1-136
Table 4-19.....	1-136
Revisions to Chapter 5.....	1-139
Revisions to Appendix A.....	1-143
Revisions to Appendix B.....	1-161
Revisions to Appendix C.....	1-163
Revisions to Appendix G.....	1-165
Revisions to Appendix H.....	1-167
Table AH-1.....	1-169
Table AH-2.....	1-172
Revisions to Appendix I.....	1-201
Revisions to Appendix J.....	1-215
Revisions to Appendix K.....	1-217
Table AK-2.....	1-218
Table AK-3.....	1-219
Table AK-4.....	1-220
Table AK-5.....	1-221
Revisions to Appendix L.....	1-223
Revisions to Appendix O.....	1-225
Revisions to Appendix Q.....	1-227
Revisions to Appendix T.....	1-229
Table AT-1.....	1-230
Revisions to Appendix U.....	1-247
Table AU-1.....	1-248
Revisions to Appendix W.....	1-263
Revisions to Appendix Y.....	1-265
Revisions to the Glossary.....	1-267
Revisions to the Acronyms and Abbreviations.....	1-271

**APPENDIXES**

Appendix AA, Analysis of Public Comments on the Draft Grand Gulch Plateau Management Plan.....	1-273
--	-------

Appendix BB, Percent Proper Utilization of Key Forage Species.....	1-275
Appendix CC, Key Forage Species, by Grazing Allotment.....	1-277
Appendix DD Wild and Scenic River Preliminary Study.....	1-279

#### LIST OF REFERENCES CITED

References cited in the proposed RMP and final EIS.....	1-287
--	-------

### VOLUME 2 of the FINAL ENVIRONMENTAL IMPACT STATEMENT.

#### INTRODUCTION TO VOLUME 2

Overview.....	2-1
Public and Agency Comments Received... List of Commentors.....	2-1
Public Comment Period.....	2-2
Requests for Extension of Time.....	2-3
Special Interest Groups.....	2-3
Individuals.....	2-3
Comments Received After Close of Comment Period.....	2-3
Analysis of Comments Received..... Table A, Breakdown of Commentors by Type, by Region.....	2-4
Printed Comments and Responses.....	2-5
1 Earth First!.....	2-7
2 National Parks & Conservation Association.....	2-8
3 National Wildlife Federation.....	2-53
4 The Nature Conservancy.....	2-76
5 Rocky Mountain Oil and Gas Association.....	2-86
6 Sierra Club, Cache Group.....	2-88
7 Sierra Club, Weninuche Group.....	2-104
8 Sierra Club, Utah Chapter.....	2-105
9 Southern Utah Wilderness Alliance	2-106
10 Utan Native Plant Society.....	2-196
11 Utan Nature Study Society.....	2-198
12 Utan Professional Arcaeological Council.....	2-199
13 Utah Wilderness Association.....	2-201
14 Wasatch Mountain Club.....	2-211
15 AMOCO Production Company.....	2-217
16 Celsius Energy Company.....	2-219
17 Colorado Outward Bound.....	2-221
18 Marathon Oil Company.....	2-224
19 National Outdoor Leadersnip School.....	2-226
20 Permits West Inc.....	2-230

21 Advisory Council On Historic Preservation.....	2-233
22 Environmental Protection Agency..	2-236
23 Forest Service, Manti-LaSal NF...	2-248
24 Bureau of Indian Affairs.....	2-250
25 Bureau of Reclamation.....	2-251
26 Bureau of Reclamation.....	2-252
27 Fish and Wildlife Service.....	2-253
28 National Park Service.....	2-257
29 Office of Surface Mining.....	2-282
30 State of Utah, Office of the Governor.....	2-286
31 State of Utah, Office of the Governor.....	2-299
32 San Juan County Commission.....	2-302
33 Northern Arizona University.....	2-305
34 Northern Arizona University.....	2-308
35 University of Arizona.....	2-314
36 University of Colorado.....	2-316
37 Daryl Anderst.....	2-317
38 Jim Aton.....	2-318
39 F.A. Barnes.....	2-319
40 Elliot Bernshaw.....	2-320
41 Jay Bickford.....	2-322
42 Fred Blackburn.....	2-324
43 James G. Bock.....	2-326
44 David Boles.....	2-327
45 Carol S. Bosserman.....	2-330
46 Susan Bridges.....	2-333
47 Mrs. Gale Burak.....	2-334
48 Richard Campanella.....	2-335
49 Joseph V. Chiareth.....	2-337
50 Kris Chick.....	2-341
51 Doug Chinn.....	2-345
52 Nina Churchman.....	2-346
53 Meredith Cox.....	2-347
54 Kirk Cunningham.....	2-348
55 Theresa M. Donahue.....	2-349
56 Llyn Doremus.....	2-352
57 James Dryer.....	2-355
58 Leo M. Eisel.....	2-359
59 Kevin Emmerich.....	2-360
60 Steve Erickson.....	2-361
61 Harlan Feder.....	2-362
62 Dorothea Fox.....	2-365
63 John Fox.....	2-367
64 Jim Graham.....	2-369
65 Douglas J. Green.....	2-370
66 Rodney Greeno.....	2-375
67 Rodney Greeno.....	2-376
68 Scott Groene.....	2-384
69 Ed Grumbine.....	2-386

70	Michael E. Holweger.....	2-388
71	Erik R. Hvoslef.....	2-389
72	Kathleen Jonnson.....	2-390
73	Wayne King.....	2-391
74	Kim Koenig.....	2-396
75	Dr. Paul B. Kunasz and Chela V. Kunasz.....	2-400
76	David Lenderts.....	2-403
77	Marjorie G. Lewis.....	2-407
78	William J. Lockhart.....	2-409
79	Tony Merten.....	2-414
80	Polly Mills.....	2-415
81	Jim Morris.....	2-417
82	Daniel Murphy.....	2-418
83	Jeff Nelson.....	2-419
84	Murray Pope.....	2-421
85	John Paul Reeves.....	2-424
86	John Paul Reeves.....	2-425
87	Eric Rexstad.....	2-426
88	Todd Robertson.....	2-427
89	Steve Rosenstock.....	2-428
90	Janet Ross.....	2-431

91	Ward J. Roylance.....	2-432
92	Michael Salamacha.....	2-433
93	David C. Saltz.....	2-435
94	Jon W. Sanders.....	2-438
95	John W. Sanders.....	2-440
96	Melissa Savage.....	2-441
97	Owen Severance.....	2-442
98	Owen Severance.....	2-443
99	Owen Severance.....	2-444
100	Owen Severance.....	2-445
101	Owen Severance.....	2-446
102	Scott T. Smith.....	2-450
103	Douglas Stark.....	2-453
104	Jocelyn C. Stoudt.....	2-455
105	John R. Swanson.....	2-458
106	Donald R. Thompson.....	2-459
107	Nicholas Van Pelt.....	2-460
108	John Veranth.....	2-462
109	Marty Walter.....	2-464
110	David W. Willey.....	2-466
111	J. Dennis Willigan.....	2-469
112	Henry G. Wright.....	2-471

PROPOSED RESOURCE MANAGEMENT PLAN  
FOR THE SAN JUAN RESOURCE AREA  
MOAB DISTRICT  
UTAH

Introduction to the Proposed Plan  
Resource Management Program Decisions  
Special Management Conditions  
Implementation and Monitoring

## PREFACE

The proposed San Juan Resource Management Plan (RMP) is essentially the same as alternative E (the preferred alternative) of the final environmental impact statement (EIS). Minor changes have been made to align the generalized areas shown in figure S-4 of the final EIS with ownership patterns, land lines (aliquot parts of sections), topography, existing rights-of-way, and adjacent management areas. Some small changes have also been made to improve manageability. Please refer to the pocket map of the proposed RMP, bound in the back of this volume.

None of the changes would affect the intent of the generalized areas shown in final EIS alternative E, or result in a change to the impact analysis in the EIS. However, as a result of these changes, the acreages shown in the EIS should be considered as estimates only and will be adjusted when the proposed RMP becomes final.

All statements referring to the plan, plan decisions, plan implementation, plan monitoring, etc. are proposals only. They are not to be construed as being in effect prior to adoption of the final RMP.



## CHAPTER 1 - INTRODUCTION TO BLM

### OVERVIEW

This proposed resource management plan (RMP) sets forth the land-use decisions, terms, and conditions for guiding and controlling future management actions in the San Juan Resource Area (SJRA). After the RMP is approved, all uses and activities in the resource area must conform with the decisions, terms, and conditions of the plan. The RMP was prepared in accordance with the requirements of the Federal Land Policy and Management Act of 1976, the National Environmental Policy Act (NEPA) of 1969, and the Bureau of Land Management (BLM) planning regulations at 43 CFR 1610.

The plan describes how the resource area will be managed, including

- mitigation measures that will be taken to avoid or minimize environmental harm;
- the sequence and priorities for implementing decisions;
- subsequent resource-specific activity planning that may be necessary; and
- how the plan will be monitored.

The proposed RMP does not present information on the existing environment or the environmental consequences of the decisions. That information is discussed in the RMP/EIS.

### PURPOSE AND NEED

In the late 1960s and early 1970s, BLM conducted several planning efforts on small sub-units of what is now SJRA and produced several management framework plans (MFPs) that provided management direction for various resources and resource

problems. The MFPs being replaced by the RMP are listed in table 1. Because of changing circumstances and conditions, including new legislation, changing policies, and new land-use conflicts and issues, an RMP was needed. The resource management planning effort was initiated in 1983 to cover the entire SJRA.

TABLE 1

#### Previous Management Framework Plans, SJRA

<u>Plan Name</u>	<u>Approximate BLM Acres</u>	<u>Plan Date</u>
South San Juan	<sup>a</sup> 1,275,340	<sup>b</sup> June 1973
Indian Creek- Beef Basin	<sup>a</sup> 173,280	<sup>b</sup> August 1973
Montezuma	436,790	<sup>b</sup> November 1974
Indian Creek- Dry Valley	<sup>c</sup> 286,440	December 1977

<sup>a</sup>Precedes formation of Glen Canyon National Recreation Area (NRA).

<sup>b</sup>Precedes formation of BLM's Moab District.

<sup>c</sup>Includes part of Grand Resource Area, Moab District.

### THE RESOURCE AREA

SJRA, within the Moab District, is responsible for management of BLM-administered lands in the

majority of San Juan County in southeastern Utah. The SJRA is bordered by the Colorado state line on the east, the Arizona state line on the south, the Colorado River on the west, and Canyonlands National Park and BLM's Grand Resource Area on the north. Monticello and Blanding are the two main communities within the resource area.

The SJRA also manages some resources on lands administered by other federal agencies. Management of the San Juan River is jointly administered by SJRA and National Park Service (NPS). The BLM manages grazing and minerals on NPS-administered land, federal minerals on U.S. Forest Service (USFS)-administered land, and certain federal minerals on Indian reservation land administered by the Bureau of Indian Affairs (BIA) and Indian tribal councils. The SJRA administers grazing allotments that extend into the Grand Resource Area on the north and the Colorado BLM Montrose District's San Juan Resource Area on the east.

Within SJRA boundaries, BLM's Grand Resource Area administers grazing in a small area; the Farmington Resource Area, Albuquerque District, New Mexico, shares administration of certain aspects of oil and gas resource management on a small area of BLM and Indian reservation lands; and the San Juan Resource Area, Montrose District, Colorado, administers grazing on certain allotments and federal minerals under a small area of Indian allotments.

Land-surface administration is shown in table 2; tables 3 and 4 show the management responsibility for grazing, minerals, and other resources.

## **IMPLEMENTATION**

### **CONFORMANCE REQUIREMENTS**

All future resource management authorizations and actions, including budget proposals, will conform with the plan. All operations and activities under existing permits, contracts, cooperative agreements, or other instruments for occupancy and use, will be modified, if necessary, to conform with this plan within a reasonable period of time, subject to valid existing rights.

### **VALID EXISTING RIGHTS**

Valid existing rights are those claims or rights to public land that take precedence over actions in the plan. As an example, a mining claim located prior to the preparation of this plan in an area withdrawn from mineral entry through the plan may remain valid. Valid existing rights may be held by other federal agencies or by private individuals or companies. Valid existing rights may pertain to any right to use the public lands in SJRA in effect when this RMP is adopted. This plan does not repeal valid existing rights on public lands.

### **FURTHER PLANNING OR ENVIRONMENTAL ANALYSIS**

Decisions in this plan will be implemented over a period of 10 years. In most cases, more detailed and site-specific planning or environmental analysis may be required before an action can be taken. The EIS prepared in association with this plan will be used as a base and incorporated by reference in any additional site or program-specific environmental analyses. Other required planning and analysis are incorporated in the decisions contained in this RMP.

### **IMPLEMENTATION PRIORITIES**

Priorities have been established for those decisions that will be implemented after adoption of the RMP. These priorities are intended to guide the order of implementation and will be reviewed annually to help develop the annual work plan (budget) commitments for the coming year. The priorities may be revised based upon changes in administrative policies, Departmental directions, or Bureau goals. The priorities for implementing decisions are shown in chapter 4 of the proposed plan.

### **APPEAL RIGHTS**

Any person adversely affected by a specific action being proposed to implement any portion of this plan may appeal such action pursuant to 43 CFR 4.400 at the time the action is proposed for implementation.

TABLE 2  
Land Surface Administration

Jurisdictional Unit	Unit Total (acres)	Agency Total (acres)	Total Acres
<b>FEDERAL OWNERSHIP</b>			3,935,655.61
BLM administered public lands		<sup>a</sup> 1,779,193.21	
National Park Service		569,176.34	
Canyonlands National Park (NP)	247,998.47		
Glen Canyon NRA	312,656.38		
Hovenweep National Monument (NM)	440.00		
Natural Bridges NM and access road	7,445.49 175.00		
Rainbow Bridge NM	461.00		
U.S. Forest Service		366,793.50	
Manti-LaSal National Forest (NF)	366,641.00		
Baker Ranger Station	152.50		
Navajo Indian Reservation		1,220,492.56	
<b>STATE OWNERSHIP</b>			244,955.22
State Lands Commission	244,935.22		
State Parks and Recreation	20.00		
<b>PRIVATE INDIAN TRUST LANDS</b>			22,998.31
Ute Indian Allotments	12,297.43		
Navajo Indian Allotments	10,700.88		
<b>PRIVATE OWNERSHIP</b>			<sup>c</sup> 335,155.99
Housing and Urban Development <sup>b</sup>	40.00		
BLM <sup>d</sup>	61.89		
Department of Energy <sup>b</sup>	79.54		
Ute Mountain Tribe	840.00		
Navajo tribe	1,280.00		
Other private lands	<sup>c</sup> 332,854.56		
<b>TOTAL</b>			4,538,765.13

NOTE: Surveyed land is measured to the hundredth of an acre; unsurveyed land is estimated to the nearest acre.

<sup>a</sup>Includes 3,053 acres of accretion land which is subject to a legal decision in ongoing litigation, and 2,591.94 acres of surface that were transferred out of federal ownership through private exchange in October 1985.

<sup>b</sup>Lands owned by the Federal Government for sole use by a federal agency. These are purchased lands, not part of the public domain, and are not subject to public land use laws.

<sup>c</sup>Does not include 2,591.94 acres of land transferred to private ownership after this table was compiled.

Source: BLM Master Title Plats, December 1984.

TABLE 3

## Management of Mineral Resources

ADMINISTRATION OF SURFACE ESTATE (acres)		ADMINISTRATION OF MINERALS ESTATE (acres)			
Managing Agency or Surface Owner	Total Surface	Federal Minerals by BLM	Federal Minerals by Other Federal Agency	State Minerals by State	Private Minerals by Owner
BLM (Public Lands)	<sup>a</sup> 1,779,193.21				
Federal Minerals		<sup>a</sup> 1,777,828.21			
State Minerals				1,365.00	
<hr/>					
NPS	569,176.34				
Canyonlands NP	(247,998.47)				
Federal Minerals			<sup>b</sup> 242,292.49		
State Minerals				5,705.98	
Glen Canyon NRA	(312,656.38)				
Federal Minerals		260,249.60			
State Minerals				800.00	
Indian Minerals			<sup>c</sup> 51,606.78		
Hovenweep NM	(440.00)				
Federal Minerals			<sup>b</sup> 440.00		
Natural Bridges NM	(7,445.49)				
Federal Minerals			<sup>b</sup> 7,445.49		
Natural Bridges NM Access Road	(175.00)				
Federal Minerals			<sup>b</sup> 175.00		
Rainbow Bridge NM	(461.00)				
Federal Minerals			<sup>b</sup> 461.00		

USFS	366,793.50		
Manti-LaSal National Forest	(366,641.00)	366,641.00	
Federal Minerals			
Baker Ranger Station	(152.50)		
Federal Minerals			e152.50

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Navajo Indian Reservation	1,220,492.56		
Federal Minerals		51,606.78	
Indian Minerals			d1,168,885.78

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State Ownership	244,955.22		
State Lands Commission	(244,935.22)		
State Minerals			244,935.22
State Parks	(20.00)		
Federal Minerals		20.00	

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Private Indian Trust Lands	22,998.31		
Ute Indian Allotments	(12,297.43)		
Private Minerals			d12,297.43
Navajo Indian Allotments	(10,700.88)		
Federal Oil and Gas		1,074.96	
Private Minerals			c9,625.92

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Private Ownership	a335,155.99		
HUD	(40.00)		
State Minerals			40.00
BLM	(61.89)		
Federal Minerals		61.89	
DOE	(79.54)		
Federal Minerals		79.54	
Ute Mountain Tribe	(840.00)		
Private Minerals			840.00
Navajo Tribe	(1,280.00)		
Private Minerals			1,280.00

TABLE 3 (Concluded)

ADMINISTRATION OF SURFACE ESTATE (acres)		ADMINISTRATION OF MINERALS ESTATE (acres)			
Managing Agency or Surface Owner	Total Surface	Federal Minerals by BLM	Federal Minerals by Other Federal Agency	State Minerals by State	Private Minerals by Owner
Other Private Lands	(332,854.56)				
Federal Minerals		<sup>a</sup> 28,396.32			
Federal Oil and Gas		26,850.86			
Federal Other Minerals <sup>f</sup>		27,687.72			
State Minerals				67,154.12	
Private Minerals					182,765.54
TOTALS	4,538,765.13	2,540,496.88	1,493,382.39	320,000.32	184,885.54

NOTE: Split-estate lands are where the surface estate and minerals estate are managed by different agencies. Federal minerals managed by the BLM will be carried into the RMP; other totals are for information only. Surveyed land is measured to the hundredth of an acre; unsurveyed land is estimated to the nearest acre.

<sup>a</sup>These figures do not reflect 2,591.94 acres transferred from federal to private surface after this table was compiled. The mineral estate remains federal minerals administered by the BLM.

<sup>b</sup>NPS, 250,813.98 acres total.

<sup>c</sup>Bureau of Indian Affairs, exploration and production managed by Farmington Resource Area, Albuquerque District, BLM, 1,178,511.80 acres.

<sup>d</sup>Bureau of Indian Affairs, exploration and production managed by San Juan Resource Area, Montrose District, BLM, 12,297.43 acres.

<sup>e</sup>USFS, 152.50 acres total.

<sup>f</sup>Includes all or some of the following: oil and gas, potash, sodium, phosphate, nitrogen, uranium, thorium, coal, or fissionable minerals.

Source: BLM Master Title Plats, December 1984.

TABLE 4

## Management of Grazing and Recreation Resources

<u>Public Resource</u>	<u>Administered by SJRA (acres)</u>	<u>Not Administered by SJRA (acres)</u>
<u>Livestock Grazing</u>		
Public lands within SJRA	1,748,253.21	
Public lands in Grand Resource Area	300.00	
Public lands in Colorado <sup>a</sup>	5,600.00	
NPS lands in Glen Canyon NRA	312,656.38	
NPS lands in Hovenweep NM	<u>100.00</u>	
TOTAL	2,066,909.59	
Public lands by Grand Resource Area		200.00
Public lands by Colorado <sup>a</sup>		10,200.00
Public lands not within an allotment <sup>b</sup>		<u>20,540.00</u>
TOTAL		30,940.00
<u>Recreation</u>		
Public lands	1,779,193.21	
San Juan River, Joint Management <sup>c</sup>	<u>15,000.00</u>	
TOTAL	1,794,193.21	

NOTE: Acres administered by SJRA will be carried into the RMP; other totals are for information only.

<sup>a</sup>Livestock grazing is managed under a memorandum of understanding with BLM's Montrose District, Colorado, San Juan Resource Area.

<sup>b</sup>Includes acreage allotted to wildlife.

<sup>c</sup>Recreational use of the San Juan River from Mexican Hat to Clay Hills Crossing is managed jointly with Glen Canyon NRA.

Source: BLM Grazing Case Files; BLM Master Title Plats, December 1984.

## MONITORING AND EVALUATION

The effects of implementing the San Juan RMP will be monitored and evaluated periodically to ensure that the desired results are being achieved. The frequency and standards for monitoring the plan are explained in chapter 4. Monitoring will determine whether original assumptions were correctly applied and impacts correctly predicted, whether mitigation measures are satisfactory, whether conditions or circumstances have significantly changed, or whether new data are significant to the plan. Monitoring will also help to establish long-term use and resource condition trends and provide information for future planning.

## PLAN MAINTENANCE

### MODIFYING THE PLAN

The RMP can be modified through plan maintenance, plan amendment, or plan revision, all of which must be documented. Documentation consists of making RMP changes available to the public at BLM's Utah State office public room, Moab District office, and SJRA.

Plan maintenance involves minor changes to the RMP to refine or further document the plan decisions. They may be in response to minor data changes; for example, refinement of acreages or mapped data. Plan maintenance does not require formal public involvement, interagency coordination, or consistency review.

An RMP amendment would be initiated in response to a proposed action that could change the scope of resource uses covered by the plan decisions. An amendment would be required in order to proceed with a project documented as not being in conformance with the plan. The planning steps would be applied, and an environmental assessment (EA) or EIS prepared with full public involvement, interagency coordination, and Governor's consistency review.

A plan revision would be a major overhaul of the RMP in response to formal monitoring. A revision could be triggered by the need to

consider monitoring findings, new data, new or revised policy, a major change in circumstances, or a change in the terms, conditions, decisions, goals, or objectives of the approved RMP. A plan revision would require an EA, EIS, or supplemental EIS with full public involvement, interagency coordination, and Governor's consistency review.

## RELATIONSHIP TO OTHER BLM PLANNING LEVELS AND STUDIES

### Tiers in Bureau Planning System

An RMP is developed within the framework of the BLM planning system, which has three distinct tiers: policy planning, land-use planning, and activity or program planning. This plan satisfies the requirements for the land-use planning tier. The Council on Environmental Quality (CEQ) regulations provide for tiering to aid compliance with NEPA (40 CFR 1500-1508).

### Related Documents

Other documents are being prepared as a result of this land-use planning effort. A rangeland program summary is being prepared concurrently with the RMP. An ORV implementation plan will be prepared within 1 year following the RMP. Management plans for areas of critical environmental concern, along with allotment management plans, habitat management plans, a fire management plan, recreation management plans for special recreation management areas, cultural resource management plans for selected sites, and watershed activity plans will be prepared following the RMP, as shown in chapter 4.

## PUBLIC INVOLVEMENT AND INTERGOVERNMENTAL/ INTERAGENCY COORDINATION

Public participation and consultation was encouraged and sought throughout the development of this plan. The RMP/EIS documents notices; coordination with other federal, state, and local agencies; public meetings; public review and comment; and other public participation efforts involved in the preparation of this RMP.



## CHAPTER 2 - RESOURCE MANAGEMENT PROGRAM DECISIONS

### OVERVIEW

The following sections set forth the decisions that would guide future management of public lands and resources in San Juan Resource Area (SJRA). These resource management decisions, together with the plan map and the administrative details discussed in the next two chapters, constitute the resource management plan (RMP) for SJRA.

This chapter describes the objectives, guidance, and specific management prescriptions for each resource management program administered in SJRA. These programs are interrelated and interdependent, and they must be viewed together with the special management conditions presented in chapter 3 for a complete description of management direction for SJRA.

### RESOURCE MANAGEMENT PLAN GOALS

The goals of this RMP are to manage public lands for multiple use of public resources, within the framework of applicable laws, regulations, and agency policies, as long as certain primitive recreation opportunities, certain cultural resource values, certain scenic values, certain wildlife habitats, and watersheds are protected; grazing use is maintained at levels existing prior to adoption of the RMP; and minerals uses are otherwise allowed to increase.

"Certain primitive recreation opportunities" means the primitive (P) and semiprimitive non-motorized (SPNM) recreation opportunity spectrum (ROS) class areas shown in figure 3-16 of the draft RMP/EIS, except the P- and SPNM-class areas in the vicinity of Squaw and Cross Canyons near the Colorado state line; and the semiprimitive motorized (SPM)-class area within the San Juan River Special Recreation Management Area (SRMA). As used in this RMP, "most P-class

areas" and "most SPNM-class areas" mean the areas as defined above.

"Certain cultural resource values" means the cultural resource values protected within Alkali Ridge, Cedar Mesa, Hovenweep, and Shay Canyon Areas of Critical Environmental Concern (ACECs), and sites listed on or eligible for listing on the National Register of Historic Places.

"Certain scenic values" means the scenic values protected within Butler Wash, Indian Creek, and Scenic Highway Corridor ACECs, and Valley of the Gods special emphasis area within Cedar Mesa ACEC.

"Certain wildlife habitats" means the crucial big game habitat areas shown in figures 3-11 and 3-12 of the draft RMP/EIS.

### 4111 OIL AND GAS MANAGEMENT

#### MANAGEMENT OBJECTIVE

- + To lease public lands for oil and gas, and to allow geophysical activity to occur, only so long as RMP goals are met; and to administer operational aspects of federal oil and gas leases where BLM does not manage the surface.

#### GENERAL MANAGEMENT GUIDANCE

Oil and gas leases issued prior to the RMP would continue to be managed under the stipulations in effect when issued. Those issued after approval of the RMP would be subject to category restrictions in the RMP. Leases are issued by BLM's Utah State office (USO). Compliance with lease terms is administered by SJRA and Moab District office.

Review of existing and potential known geologic structures (KGSs) in SJRA is continuous. Qualifying areas are designated as KGSs, and existing KGSs may be revised in accordance with drilling data.

Some federal oil and gas resources underlie lands not administered by BLM. The surface owner or administering federal agency manages the surface, and BLM administers the operational aspects of these leases with concurrence of the surface owner or administering agency where such use is authorized. BLM oil and gas leasing categories do not apply to these leases.

- Glen Canyon National Recreation Area (NRA): BLM administers 101,720 acres of federal leases on lands available for oil and gas development (see Glen Canyon NRA Minerals Management Plan).
- Manti-LaSal National Forest (NF): BLM administers 366,641 acres of federal leases on Monticello Ranger District.
- Navajo Indian Reservation: BLM would administer 51,610 acres of federal leases, under a memorandum of understanding with Farmington Resource Area, Albuquerque District, BLM, with concurrence of Indian tribe.
- Indian Trust Lands: BLM administers 1,080 acres of federal leases.
- Split-estate lands: BLM administers 20 acres of federal leases with state surface and 55,390 acres of federal leases with private surface.

Geophysical operations are conducted under a notice of intent. BLM does not have authority to approve or deny work done under such a notice, except to prevent unnecessary and undue degradation of public lands. Where possible, BLM would work with geophysical operators to apply RMP conditions.

#### SPECIFIC MANAGEMENT PRESCRIPTIONS

<u>Leasing Category</u>	<u>Acres</u>
1 Open with standard conditions	482,510

- |   |   |         |
|---|---|---------|
| 2 | Open with special conditions              | 923,450 |
|   | Surface restrictions to protect:          |         |
|   | - Alkali Ridge ACEC                       |         |
|   | - Cedar Mesa ACEC, partial                |         |
|   | - Hovenweep ACEC, partial                 |         |
|   | - Shay Canyon ACEC                        |         |
|   | - floodplains, riparian/aquatic areas     |         |
|   | - sensitive soils                         |         |
|   | - most ROS SPNM-class areas               |         |
|   | - existing land leases                    |         |
|   | Seasonal restrictions to protect:         |         |
|   | - bighorn sheep lambing and rutting areas |         |
|   | - antelope fawning area                   |         |
|   | - deer winter range                       |         |
- 
- |   |   |         |
|---|---|---------|
| 3 | No surface occupancy                        | 373,230 |
|   | Exclude surface disturbance to protect:     |         |
|   | - Bridger Jack Mesa ACEC                    |         |
|   | - Butler Wash ACEC                          |         |
|   | - Cedar Mesa ACEC, partial                  |         |
|   | - Dark Canyon ACEC                          |         |
|   | - Hovenweep ACEC, partial                   |         |
|   | - Indian Creek ACEC                         |         |
|   | - Lavender Mesa ACEC                        |         |
|   | - Scenic Highway Corridor ACEC              |         |
|   | - most ROS P-class areas                    |         |
|   | - ROS SPM-class area in San Juan River SRMA |         |
|   | - Pearson Canyon SRMA                       |         |
|   | - developed recreation sites                |         |

4	No lease	0
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<u>Geophysical Activity</u>	<u>Acres</u>
Standard conditions	482,510
Special conditions	1,296,680
Surface restrictions to protect:	
- Alkali Ridge ACEC	
- Bridger Jack Mesa ACEC	
- Butler Wash ACEC	
- Cedar Mesa ACEC	
- Dark Canyon ACEC	
- Hovenweep ACEC	
- Indian Creek ACEC	
- Lavender Mesa ACEC	
- Scenic Highway Corridor ACEC	
- Shay Canyon ACEC	
- floodplains and riparian/aquatic areas	
- sensitive soils	
- most ROS P-class areas	
- most ROS SPNM-class areas	

- ROS SPM-class area in San Juan River SRMA
  - Pearson Canyon SRMA
  - existing land leases
  - developed recreation sites
- Seasonal restrictions to protect:
- bighorn sheep lambing and rutting areas
  - antelope fawning area
  - deer winter range

#### 4113 GEOTHERMAL MANAGEMENT

##### MANAGEMENT OBJECTIVE

- + To lease the Warm Springs Canyon prospectively valuable area only so long as RMP goals are met.

##### GENERAL MANAGEMENT GUIDANCE

A portion of Warm Springs Canyon geothermal area (about 16,320 acres) extends into SJRA. U.S. Geological Survey (USGS) has identified this area as prospectively valuable for geothermal resources. No data are available to confirm whether or not a geothermal resource is present. No interest has been expressed in geothermal leasing. Leases in Warm Springs Canyon geothermal area would be noncompetitive, and would be issued by USO.

In addition, approximately 20,050 acres of the prospectively valuable lands underlie Glen Canyon NRA in San Juan County. However, geothermal leasing is prohibited within the NRA.

At such time as interest is expressed in geothermal leasing, the RMP would be amended to establish leasing conditions and exploration requirements.

##### SPECIFIC MANAGEMENT PRESCRIPTIONS

None developed.

#### 4121 COAL MANAGEMENT

##### MANAGEMENT OBJECTIVE

- + To allow for coal exploration, so long as RMP goals are met, but not provide for leasing coal resources.

##### GENERAL MANAGEMENT GUIDANCE

Coal resources within SJRA are limited to San Juan Coal Field, totaling about 530,000 acres. Approximately 60 percent of this field is under private ownership (both surface and mineral estate); SJRA administers about 212,000 acres of federal surface and federal minerals in the coal field.

Leases are issued by USO. No coal leases have been issued in SJRA prior to adoption of the RMP. Before a lease can be issued, SJRA must apply mining unsuitability criteria (43 CFR 3461), which may restrict all or certain types of mining techniques. This would require an amendment to the RMP. If coal leases are issued, they would be subject to special conditions developed in the RMP, as well as through the unsuitability criteria.

Coal exploration prior to leasing would be allowed, subject to the RMP special conditions.

##### SPECIFIC MANAGEMENT PRESCRIPTIONS

Coal lease areas would not be designated, and coal would not be leased.

<u>Coal Exploration</u>	<u>Acres</u>
Standard conditions	481,150
Special conditions	923,450
Surface restrictions to protect:	
- Alkali Ridge ACEC	
- Cedar Mesa ACEC, partial	
- Hovenweep ACEC, partial	
- Shay Canyon ACEC	
- floodplains, riparian/aquatic areas	
- sensitive soils	
- most ROS SPMN-class areas	
- existing land leases	
Seasonal restrictions to protect:	
- bighorn sheep lambing and rutting areas	
- antelope fawning area	
- deer winter range	

No surface occupancy 373,230

Exclude surface disturbance to protect:

- Bridger Jack Mesa ACEC
- Butler Wash ACEC

- Cedar Mesa ACEC, partial
- Dark Canyon ACEC
- Hovenweep ACEC, partial
- Indian Creek ACEC
- Lavender Mesa ACEC
- Scenic Highway Corridor ACEC
- most ROS P-class areas
- ROS SPM-class area in San Juan River SRMA
- Pearson Canyon SRMA
- developed recreation sites

Closed to exploration 0

#### 4122 OIL SHALE/TAR SAND MANAGEMENT

##### MANAGEMENT OBJECTIVE

- + To lease White Canyon Special Tar Sand Area (STSA) for combined hydrocarbon leases (CHLs), only so long as RMP goals are met.

##### GENERAL MANAGEMENT GUIDANCE

White Canyon STSA is available for tar sand or oil and gas development only through CHLs. No CHLs have been issued in the STSA prior to adoption of the RMP. CHLs would be issued by USO under competitive leases, subject to category stipulations in the RMP. Of the 10,470-acre STSA, 7,980 acres are federal surface underlain by federal minerals. The remaining area does not overlie federal minerals and would not be subject to RMP stipulations.

Oil and gas leases issued after November 16, 1981 carry the right to develop any tar sand resources that may be present outside the STSA (see 4111, Oil and Gas Management).

##### SPECIFIC MANAGEMENT PRESCRIPTIONS

<u>Leasing Category</u>	<u>Acres</u>
1 Open with standard conditions	500
2 Open with special conditions	5,510
Surface restrictions to protect:	
- ROS SPM-class area	
Seasonal restrictions to protect:	
- bighorn sheep lambing and rutting areas	

- 3 No surface occupancy 1,970
- Exclude surface disturbance to protect:
  - Dark Canyon ACEC
  - Hovenweep ACEC, partial
  - Scenic Highway Corridor ACEC
  - ROS P-class areas

- 4 No lease 0

#### 4131 MINERAL MATERIALS MANAGEMENT

##### MANAGEMENT OBJECTIVE

- + To make federal mineral materials available where needed, only so long as RMP goals are met.

##### GENERAL MANAGEMENT GUIDANCE

Mineral-materials disposal is by sale at fair market value or by free use permit for public agencies. Disposal sites are established in response to specific requests. The RMP determines areas available for use of mineral materials and conditions that need to be applied to use of material sites. Use of existing sites would continue to be subject to permit conditions applied when the permit was issued. Sales and free use permits are prepared by SJRA.

Seven areas, covering about 1,175 acres, are Federal Highway Administration material site rights-of-way, and one additional application has been received (table 5). Eleven areas, totaling about 2,585 acres, have been designated as community pits (table 6).

Free use of petrified wood (up to 250 pounds per person per year) is allowed for noncommercial purposes on all public lands unless otherwise provided for through notice in the Federal Register. No areas have been designated as closed to petrified wood collecting in SJRA.

##### SPECIFIC MANAGEMENT PRESCRIPTIONS

<u>Mineral Material Disposal and Development</u>	<u>Acres</u>
Standard conditions	482,510

TABLE 5

## Material Site Rights-of-Way Granted Prior to the RMP

Serial Number	Location	Legal Description	Acres
U-020665 <sup>a</sup>	Mexican Hat	T. 41 S., R. 19 E. Sec. 20: NE 1/4	160
U-079361	Mexican Hat	T. 41 S., R. 19 E. Sec. 29: Lots 4, 5, S 1/2 NE 1/4, E 1/2 SE 1/4	217.20
U-023905 <sup>a</sup>	Cottonwood Wash	T. 37 S., R. 21 E. Sec. 14: S 1/2 SE 1/4 SW 1/4 Sec. 23: N 1/2 NE 1/4 NW 1/4 Sec. 23: SW 1/4 NE 1/4	40 40
U-028548 <sup>a</sup>	McCray Mesa	T. 39 S., R. 22 E. Sec. 1: SE 1/4 SE 1/4 T. 39 S., R. 23 E. Sec. 6: Lots 5, 6, 7 Sec. 7: Lot 1	40 151.54
U-019653	Bluff	T. 40 S., R. 21 E. Sec. 24: NE 1/4 NE 1/4 T. 40 S., R. 22 E. Sec. 19: Lot 1	77.62
U0-40153	Bluff	T. 40 S., R. 21 E. Sec. 26: SE 1/4 NW 1/4 NE 1/4	10
U0-15225	Hatch Wash	T. 28 S., R. 22 E. Sec. 1: SW 1/4 NE 1/4, SE 1/4 NW 1/4, N 1/2 SW 1/4 T. 29 S., R. 23 E. Sec. 3: W 1/2 SE 1/4 T. 30 S., R. 23 E. Sec. 10: NE 1/4	160 80
UTU-61704	Blanding	T. 36 S., R. 22 E. Sec. 13: SE 1/4 NE 1/4 SW 1/4 SW 1/4 NW 1/4 SE 1/4 SW 1/4 SE 1/4 E 1/2 SE 1/4 Sec. 24: E 1/2 NE 1/4 NW 1/4 NW 1/4 NE 1/4	140 60
TOTAL ACRES			1,176.36

<sup>a</sup>Being relinquished by the Federal Highway Administration (431,54 acres total).

TABLE 6

## Community Pits Existing Prior to the RMP

Serial Number	Location	Legal Description	Acres
UTU-59997	Buck	T. 40 S., R. 21 E. Sec. 27: E 1/2 SE 1/4 NE 1/4, SW 1/4 SE 1/4 N 1/2 SE 1/4 SE 1/4, S 1/2 NE 1/4 SE 1/4	100
U-53838	Bluff	T. 40 S., R. 22 E. Sec. 27: SW 1/4 NW 1/4 Sec. 28: lots 1, 2, 3, & 5	153.74
U-53837	Airport	T. 40 S., R. 21 E. Sec. 5: lots 4, 5, & 6, S 1/2 NW 1/4 SW 1/4, SW 1/4 SE 1/4 Sec. 8: lots 1 & 2, Tract B	224.27
U-53782	Lem's Draw	T. 36 S., R. 22 E. Sec. 24: NW 1/4 NE 1/4, E 1/2 NW 1/4, NE 1/4 SW 1/4	160
U-53755	Gray Ridge	T. 40 S., R. 23 E. Sec. 36: Lots 3, 4, 5, 6, & W 1/2 NW 1/4	256.74
U-52418	Spring Creek	T. 33 S., R. 23 E. Sec. 8: NE 1/4 Sec. 9: N 1/2 NE 1/4, SW 1/4 NE 1/4, NW 1/4	440
U-52416	Bluff Bench	T. 40 S., R. 23 E. Sec. 26: SW 1/4 Sec. 27: Lots 1, 2, 3, NE 1/4 SW 1/4, SE 1/4 Sec. 28: Lots 1, 2, 3, & 4 Sec. 34: Lots 1, 2, 3, & 4 N 1/2 NE 1/4 Sec. 35: Lots 3 & 4, N 1/2 NW 1/4	920
U-52076	Bucket Canyon	T. 40 S., R. 23 E. Sec. 35: Lots 1, 2, 7, N 1/2 NE 1/4	173
U-52074	Brown's Canyon	T. 37 S., R. 23 E. Sec. 18: SW 1/4 SE 1/4 SW 1/4, S 1/2 SW 1/4 SW 1/4 Sec. 19: NW 1/4 NE 1/4 NW 1/4, N 1/2 NW 1/4 NW 1/4	60
UTU-52711	Recapture	T. 36 S., R. 22 E. Sec. 13: S 1/2 NW 1/4 NE 1/4, SW 1/4 NE 1/4	60
UTU-52033	Mexican Hat	T. 42 S., R. 18 E. Sec. 1: SE 1/4 SW 1/4 SW 1/4 NE 1/4, SE 1/4 SW 1/4 NE 1/4 W 1/4 NE 1/4 NW 1/4 SE 1/4, NW 1/4 NW 1/4 SE 1/4 SW 1/4 NW 1/4 SE 1/4	37.5
TOTAL ACRES			2,585.25

Special conditions 922,830

Surface restrictions to protect:

- Alkali Ridge ACEC
- Cedar Mesa ACEC, partial
- Snay Canyon ACEC
- floodplains, riparian/aquatic areas
- sensitive soils
- most ROS SPMN-class area
- existing land leases

Seasonal restrictions to protect:

- bighorn sheep lambing and rutting areas
- antelope fawning area
- deer winter range

No disposal 373,850

Exclude surface disturbance to protect:

- Bridger Jack Mesa ACEC
- Butler Wasn ACEC
- Cedar Mesa ACEC, partial
- Dark Canyon ACEC
- Hovenweep ACEC
- Indian Creek ACEC
- Lavender Mesa ACEC
- Scenic Highway Corridor ACEC
- most ROS P-class areas
- ROS SPM-class area in San Juan River SRMA
- Pearson Canyon SRMA
- developed recreation sites

#### 4132 MINING LAW ADMINISTRATION

#### MANAGEMENT OBJECTIVE

- + To make public lands available for claim location and mineral development, so long as the scenic values identified in the RMP goals and primitive recreation values in Cedar Mesa ACEC are protected; to apply RMP goals to mineral development only so long as valid legal rights of claimants are not curtailed; and to administer operational aspects of claims where BLM does not manage the surface.

#### GENERAL MANAGEMENT GUIDANCE

Locatable minerals are administered under the mining laws, which preserve individuals' and corporations' rights to enter on the public lands to claim (locate) certain types of mineral discoveries. All public lands overlying federal minerals are open to mining claim location

unless specifically withdrawn from mineral entry by Secretarial order or public law or segregated from mineral entry under specific reservations, such as a recreation and public purposes (R&PP) lease. Lands and minerals that were acquired by the Federal Government but were not part of the original public domain are not open to mineral entry under the mining laws. Lands not open to mineral entry prior to the RMP are shown in table 7.

TABLE 7

#### Areas Not Open to Mineral Entry Prior to the RMP

	Federal Lands	
	Within SJRA Boundary (acres)	Public Lands in SJRA (acres)
<u>Withdrawals</u>		
National Park Service	569,180	0
U.S. Forest Service	150	0
Navajo Indian reservation (BIA)	1,168,890	0
Department of Energy	50	50
Subtotal	1,738,270	50
<u>Segregations</u>		
R&PP leases	140	140
Bluff airport lease	400	400
Small business lease	a	a
Material site		
rights-of-way	900	900
C&MU <sup>b</sup> classifications	92,130	92,130
Subtotal	93,570	93,570
Acquired lands	9,730	9,730
TOTAL	1,841,570	103,350

<sup>a</sup>Less than 10 acres.

<sup>b</sup> Classification and Multiple Use Act.

Source: Master Title Plats, December 1984.

The RMP identifies lands to be withdrawn from mineral entry, but does not serve to withdraw these lands. BLM must file an application for Secretarial withdrawal. Lands would become segregated from entry for 2 years upon BLM's filing for withdrawal. If the Secretary orders a withdrawal, the segregation ceases. If the Secretary disagrees with BLM's recommendation, he can release the segregation. If the Secretary fails to act, the segregation expires after 2 years. Validity of claims located on these areas prior to segregation would not be affected.

The RMP does not impose conditions on work done under a notice, but does provide special conditions to apply to operations approved under a plan of operations, regardless of whether the claim is located before or after the RMP is adopted. For claims previously located in segregated areas, work done under a plan of operations would be approved with special conditions to protect the resource value for which the segregation was made.

BLM administers claim recordation requirements (at USO) and operational aspects of mining federally owned minerals (at SJRA), whether or not BLM administers the surface. Mining claims located on U.S. Forest Service (USFS)-administered lands are located, recorded, and operated very much like claims on public land. Location and operation of mining claims on other federal lands or split-estate lands is extremely restricted under various land ownership laws. The surface owner or administering federal agency manages the surface. RMP requirements do not apply to nonpublic lands.

- Manti-LaSal NF: administer mining claims on 366,641 acres in Monticello Ranger District.
- Split-estate lands: administer federal minerals on 20 acres of state surface and 56,090 acres of private surface.

Federally owned locatable minerals underlying NPS-administered federal lands within SJRA boundaries are not available for claim location, because all NPS-administered land has been withdrawn from mineral entry. Locatable minerals under Glen Canyon NRA may be available for lease in the future, but no regulations have yet been formulated to allow for this.

## SPECIFIC MANAGEMENT PRESCRIPTIONS

<u>Mining Claim Location</u>	<u>Acres</u>
Administer mining claim location	1,777,830
Open to entry	1,497,610
Proposed for withdrawal	280,220
To protect	
- Butler Wash ACEC	
- Cedar Mesa ACEC, partial (Grand Gulch and Valley of the Gods special emphasis areas and ROS P-class areas)	
- Indian Creek ACEC	
- Scenic Highway Corridor ACEC	
- ROS SPM-class area in San Juan River SRMA	
- Pearson Canyon SRMA	
- developed recreation sites	
- prior classifications and segregations	
- acquired lands	
- prior DOE withdrawal	
<u>Approve Plans of Operations</u>	<u>1,497,610</u>
Standard conditions	313,160
Special conditions	1,184,450
Surface restrictions to protect:	
- Alkali Ridge ACEC	
- Bridger Jack Mesa ACEC	
- Cedar Mesa ACEC	
- Hovenweep ACEC	
- Lavender Mesa ACEC	
- Shay Canyon ACEC	
- floodplains, riparian/aquatic areas	
- sensitive soils	
- most ROS SPM-class area	
- existing land leases	
Seasonal restrictions to protect:	
- bighorn sheep lambing and rutting areas	
- antelope fawning area	
- deer winter range	

## 4133 MINERAL MANAGEMENT (NONENERGY LEASABLES)

### MANAGEMENT OBJECTIVE

- + To allow minerals leasing and development, only so long as RMP goals are met.



## GENERAL MANAGEMENT GUIDANCE

In SJRA, potash is the only mineral that has been managed under this program, although other nonenergy leasable minerals (if present) could be leased, if found to occur in marketable quantities. The RMP establishes categories of conditions that apply to prospecting permits or leases. In areas where mineral values are not known, SJRA could issue prospecting permits. These can lead to issuance of a preference right lease. In areas with known mineral occurrence, leases are sold competitively. Leases are issued by USO. Once an area is leased, the Federal Government is committed to allowing mining on the lease.

Within SJRA, two areas fall within known potash leasing areas (KPLAs) (table 8). KPLA designations, based on known geologic data, would remain in place until potash resources are depleted. Within a KPLA, potash leases are acquired through competitive bidding. Additional KPLAs could be designated, based on geologic field data, if interest warranted. This would be an administrative action, and no plan amendment would be required.

## SPECIFIC MANAGEMENT PRESCRIPTIONS

<u>Leasing Category</u>	<u>Acres</u>
1 Open with standard conditions	481,150
2 Open with special conditions	923,450
Surface restrictions to protect:	
- Alkali Ridge ACEC	
- Cedar Mesa ACEC, partial	
- Hovenweep ACEC, partial	
- Snay Canyon ACEC	
- floodplains, riparian/aquatic areas	
- sensitive soils	
- most ROS SPM-class area	
- existing land leases	
Seasonal restrictions to protect:	
- bighorn sheep lambing and rutting areas	
- antelope fawning area	
- deer winter range	
3 No surface occupancy	373,230
Exclude surface disturbance to protect:	
- Bridger Jack Mesa ACEC	
- Butler Wash ACEC	

- Cedar Mesa ACEC, partial
- Dark Canyon ACEC
- Hovenweep ACEC, partial
- Indian Creek ACEC
- Lavender Mesa ACEC
- Scenic Highway Corridor ACEC
- most ROS P-class areas
- ROS SPM-class area in San Juan River SRMA
- Pearson Canyon SRMA
- developed recreation sites

4 No lease

0

## 4211 RIGHTS OF WAY

### MANAGEMENT OBJECTIVE

- + To designate transportation and utility corridors; to allow discretionary rights-of-way only so long as RMP goals are met; and to process other rights-of-way upon request.

## GENERAL MANAGEMENT GUIDANCE

Lands available for rights-of-way, including major transportation and utility systems, are divided into four major categories: (1) lands in designated transportation and utility corridors where standard operating procedures apply; (2) lands outside of designated transportation and utility corridors where additional conditions may apply after completion of site-specific NEPA documentation; (3) areas to be avoided; and (4) areas to be excluded (not available).

Designated transportation and utility corridors include existing groupings of rights-of-way for electric transmission facilities, pipelines 10 inches and larger, communication lines, federal and state highways, and major county road systems. These include those recommended in the May 1980 Western Regional Corridor Study [Western Utility Group, 1980]. Corridors are generally 1 mile wide, centered on the existing right-of-way, unless shown otherwise on the RMP map. Since the demand is minimal, separate right-of-way corridors for major transmission and utility systems are not designated.

The RMP identifies lands to be excluded, avoided, or available for additional rights-of-way. Rights-of-way granted prior to adoption of the

TABLE 8

## Known Potash Lease Areas

<u>Lisbon Valley</u>		Sec. 27-29 All
T. 29 S., R. 24 E.		Sec. 30 Lot 1, NE 1/4, E 1/2 NW 1/4, NE 1/4 SW 1/4, N 1/2 SE 1/4, SE 1/4 SE 1/4
Sec. 34 SW 1/4 NE 1/4, W 1/2, SE 1/4		Sec. 32 NE 1/4 NE 1/4
Sec. 35 NW 1/4 SW 1/4, S 1/2 SW 1/4		Sec. 33 N 1/2 N 1/2, SE 1/4 NE 1/4
		Sec. 34 N 1/2 N 1/2, SW 1/4 NW 1/4
		Sec. 35 N 1/2, N 1/2 SE 1/4, SE 1/4 SE 1/4
T. 29 1/2 S., R. 24 E.		Sec. 36 W 1/2 SW 1/4
Sec. 25 Lot 4		
Sec. 26 Lots 1-4		
Sec. 27 Lot 1		
Sec. 34 E 1/2 NE 1/4		
Sec. 35 All		
Sec. 36 SW 1/4 NE 1/4, W 1/2, SE 1/4		
		<u>Cane Creek</u>
T. 30 S., R. 24 E.		T. 26 S., R. 20 E.
Sec. 1 Lots 1-4, S 1/2 N 1/2, S 1/2		Sec. 31 Lots 1-2, NE 1/4, E 1/2 NW 1/4, NE 1/4 SW 1/4, SE 1/4
Sec. 2 Lots 1-4, S 1/2 N 1/2, W 1/2 SW 1/4, SE 1/4		Sec. 32-35 All
Sec. 11 N 1/2 NE 1/4, SE 1/4 NE 1/4, E 1/2 SE 1/4		Sec. 36 Lots 1-4, SW 1/4 NE 1/4, W 1/2, SE 1/4
Sec. 12 All		
Sec. 13 E 1/2, E 1/2 W 1/2, W 1/2 NW 1/4		T. 27 S., R. 20 E.
Sec. 24 E 1/2		Sec. 1 Lots 1-8, S 1/2 N 1/2, S 1/2
Sec. 25 NE 1/4 NE 1/4		Sec. 2 Lots 1-8, SE 1/4 SE 1/4
		Sec. 3 Lots 1-8
		Sec. 4 Lots 1-8
		Sec. 5 Lots 1, 2, 3, 7, 8
		Sec. 10 SE 1/4 SE 1/4
		Sec. 11 E 1/2, SE 1/4 NW 1/4, SW 1/4
		Sec. 12 Lots 1-8, N 1/2 N 1/2, S 1/2 NW 1/4, W 1/2 SW 1/4, SE 1/4 SE 1/4
		Sec. 13 Lots 1-8, E 1/2, W 1/2 NW 1/4, NW 1/4 SW 1/4
		Sec. 14 E 1/2, E 1/2 W 1/2, W 1/2 NW 1/4, NW 1/4 SW 1/4
		Sec. 15 E 1/2 NE 1/4, NE 1/4 SE 1/4
T. 30 S., R. 25 E.		T. 26 S., R. 21 E.
Sec. 5 Lot 28, SW 1/4, SW 1/4 SE 1/4		Sec. 31 Lots 1-7, E 1/2, SE 1/4 NW 1/4, E 1/2 SW 1/4
Sec. 6 Lots 15, 19-23, 25-30, E 1/2 SW 1/4, SE 1/4		
Sec. 7 Lots 1-4, E 1/2, E 1/2 W 1/2		
Sec. 8 All		
Sec. 9 SW 1/4 NW 1/4, SW 1/4, SW 1/4 SE 1/4		
Sec. 15 SW 1/4 NW 1/4, SW 1/4, SW 1/4 SE 1/4		
Sec. 16-17 All		
Sec. 18 Lots 1-4, E 1/2, E 1/2 W 1/2		
Sec. 19 Lots 1/4, E 1/2, E 1/2 W 1/2		
Sec. 20-22 All		
Sec. 23 SW 1/4 NW 1/4, SW 1/4, SW 1/4 SE 1/4		
Sec. 26 W 1/2 E 1/2, W 1/2		
		T. 27 S., R. 21 E.
		Sec. 6 Lots 1-13, SE 1/4 NE 1/4, E 1/2 SE 1/4
		Sec. 7 Lots 1-6, E 1/2, E 1/2 SW 1/4

NOTE: Only portions of the Lisbon Valley and Cane Creek KPLAs are within the SJRA.

RMP would continue to be used, subject to the conditions of the grant; renewals may be subject to the conditions developed in the RMP.

Rights-of-way for access to private and state inholdings, inneld oil and gas leases, and pipelines for producing oil and gas wells are processed and issued upon application; by law these cannot be denied. Rights-of-way for county and state roads similarly would not be denied. BLM is required to recognize and maintain the county's Revised Statute (R.S.) 2477 road system; to provide right-of-way reservations to BLM or other federal agencies upon request; and to provide rights-of-way for water projects upon proper application. The land report, prepared at the same time as site-specific NEPA documentation, documents the action on each application.

#### SPECIFIC MANAGEMENT PRESCRIPTIONS

<u>Lands Available for Rights-of-Way</u>	<u>Acres</u>
In designated corridors	85,760
Outside designated corridors	1,308,840
Standard conditions	395,390
Special conditions	923,450
Surface restrictions to protect:	
- floodplains, riparian/aquatic areas	
- sensitive soils	
- most ROS SPNM-class area	
- existing land leases	
Seasonal restrictions to protect:	
- bighorn sheep lambing and rutting areas	
- antelope fawning area	
- deer winter range	
Avoidance areas	88,140
To protect	
- Alkali Ridge ACEC	
- Bridger Jack Mesa ACEC	
- Cedar Mesa ACEC, partial	
- Hovenweep ACEC	
- Lavender Mesa ACEC	
- Shay Canyon ACEC	
- some ROS P-class areas	

Exclusion areas	286,450
To protect	
- Butler Wash ACEC	
- Cedar Mesa ACEC, partial	
(Grand Gulch and Valley of the Gods special emphasis areas and ROS P-class areas)	
- Dark Canyon ACEC	
- Indian Creek ACEC	
- Scenic Highway Corridor ACEC	
- ROS SPNM-class area in San Juan River SRMA	
- Pearson Canyon SRMA	
- developed recreation sites	

#### 4212 LANDS

##### MANAGEMENT OBJECTIVE

- + To dispose of lands for community expansion or private uses where RMP goals would be kept; and to process permits, leases and other actions as needed, while applying RMP goals to the extent possible.

##### GENERAL MANAGEMENT GUIDANCE

Lands actions commonly involve authorizing specific land uses or disposing of public lands. These actions are considered upon application and cannot reasonably be predicted in the RMP. Most lands actions are processed by SJRA.

The RMP identifies general criteria under which lands actions could be considered. The suitability of a specific tract to meet those criteria would be determined through the site-specific NEPA documentation and land report prepared at the time an action is proposed.

The RMP identifies specific tracts of land available for community expansion, public purposes, or private use; these lands are considered available for sale or other disposal. For other lands, a plan amendment would have to be prepared upon receipt of application or proposal for a land sale, exchange, state indemnity selection, or other disposal action in order for the action to be considered. Generally, disposals of qualifying land would be allowed if: (1) they are in the national interest; (2) disposal meets requirements of other appropriate law, such as the R&PP Act; and (3) disposal is not precluded by law. The land report documents the action on each application.

The areas shown in table 9 are classified under the Classification and Multiple Use (C&MU) Act and are closed to entry under the public land laws, including the general mining laws, but not the mineral leasing laws.

TABLE 9

**Classifications and Segregations  
Made Prior to the RMP**

<u>C&amp;MU Classifications</u>	<u>Acreage</u>
Dark Canyon Primitive Area	57,427.72
Grand Gulch Primitive Area	32,847.00
Sand Island Recreation Site	253.59
Arch Canyon Recreation Site	40.00
Kane Springs Recreation Site	80.00
Salt Creek Recreation Site	240.00
Alkali Ridge Historic Site	80.00
Hole-in-the-Rock Historic Trail	1,115.60
Butler Wash Archaeological Site	40.00
Subtotal	92,123.91
<u>Land Leases Issued Prior to RMP</u>	<u>Acreage</u>
<u>R&amp;PP Leases</u>	
San Juan Foundation for Higher Education, Blanding school facility	120.00
San Juan Water Conservancy District, Recapture Lake recreational facility	20.00
<u>Small Business Lease</u>	
Fry Canyon Store	5.00
<u>Airport Lease</u>	
Bluff Airport lease	400.00
Subtotal	545.00
TOTAL ACRES CLASSIFIED	92,668.91

NOTE: Surveyed land is measured to the hundredth of an acre; unsurveyed land is estimated to the nearest acre.

Source: BLM Master Title Plats, December 1984.

Existing R&PP leases generally carry the right to patent. Upon proper application, existing R&PP leases (140 acres), which have previously been determined suitable for R&PP lease or patent, could be patented. An additional area (470 acres) adjacent to Recapture Lake could be classified as suitable for disposal, for a total of 610 acres.

Permits or leases for special public-land uses are considered upon application. The RMP imposes conditions of use within specific areas. Special uses, including community expansion, can generally be accommodated on qualifying lands upon proper application.

Unauthorized use of public lands is resolved either through termination of the activity or by lease of the lands to the trespasser, consistent with RMP management objectives. Priority is given to resolving unauthorized uses where malicious or criminal intent is involved, sensitive resources of national significance are threatened, or rights of authorized users are detrimentally affected.

**SPECIFIC MANAGEMENT PRESCRIPTIONS**

A total of 6,430 acres would be provided for disposal for community expansion or private use, including the tracts listed in table 10.

Table 10 provides legal descriptions for tracts that have been examined and found to meet the sales criteria of Section 203 of the Federal Land Policy and Management Act (FLPMA). Sale of individual parcels may be precluded on a temporary or long-term basis because of mining claim location, presence of archaeological or historical sites, presence of habitat used by T/E species (unless disposal would benefit the species), or other specific legal reasons.

Specific requests for lands disposal or sales cannot be successfully anticipated through the planning process. Other tracts not listed may be found suitable for sale under Section 203 of FLPMA. If an application for sale or other disposal is received, the requested tract would be examined to see if sale is in the national interest. The request may or may not be for an isolated parcel. A plan amendment would be

TABLE 10

## Tracts Identified for Disposal

<u>Designation</u>	<u>Legal Description</u>	<u>Geographic Area</u>	<u>Acreage</u>
C, D, E, F	T. 40 S., R. 21 E. Sec. 27: S 1/2 SW 1/4	near Bluff	80.00
C	T. 36 S., R. 16 E. Sec. 28: W 1/2 NW 1/4 NE 1/4, N 1/2 NW 1/4 SW 1/4 NE 1/4	Fry Canyon store	25.00
A, D	T. 35 S., R. 22 E. Sec. 28: N 1/2 SW 1/4	north of Blanding	80.00
E	T. 36 S., R. 22 E. Sec. 12: Lots 1, 2, 4, 6 E 1/2 NE 1/4, SE 1/4 SE 1/4 Sec. 13: E 1/2 NE 1/4	at Recapture Lake	363.80
E	T. 36 S., R. 22 E., Sec. 27: SW 1/4 SW 1/4 Sec. 34: W 1/2 NW 1/4	education center at Blanding	120.00
C, D	T. 36 S., R. 22 E. Sec. 28: SE 1/4 NE 1/4, E 1/2 SE 1/4	adjacent to Blanding	120.00
A, D	T. 31 S., R. 23 E. Sec. 34: NW 1/4 NW 1/4	near U-211 at Photograph Gap	40.00
A, D	T. 32 S., R. 23 E. Sec. 18: NE 1/4 NW 1/4 Sec. 24: SE 1/4 SW 1/4 Sec. 35: NW 1/4 SW 1/4	Harts Draw Peters Hill northwest of Monticello Airport	40.00 40.00 40.00
A, D	T. 35 S., R. 23 E. Sec. 9: NW 1/4 NW 1/4 Sec. 16: NE 1/4 NW 1/4 Sec. 19: NW 1/4 SE 1/4	Devils Canyon	120.00
A, D	T. 36 S., R. 23 E. Sec. 8: NW 1/4 NW 1/4 Sec. 20: NE 1/4 SE 1/4	northeast of Recapture Lake northeast of Blanding	40.00 40.00

TABLE 10 (Continued)

<u>Designation</u>	<u>Legal Description</u>	<u>Geographic Area</u>	<u>Acreage</u>
A, D	T. 39 S., R. 23 E. Sec. 23: SE 1/4 SE 1/4	in Navajo Indian reservation	<sup>a</sup> 40.00
A, B, D	T. 39 S., R. 24 E. Sec. 17: S 1/2 Sec. 18: SE 1/4 Sec. 20: NE 1/4 Sec. 21: NE 1/4, S 1/2 Sec. 22: S 1/2 Sec. 27: W 1/2 Sec. 28: NE 1/4	in Navajo Indian reservation	<sup>a</sup> 1,920.00
A, D	T. 39 S., R. 25 E. Sec. 6: NE 1/4 SE 1/4, S 1/2 SE 1/4 Sec. 7: Lot 2, E 1/2 NE 1/4, SW 1/4 NE 1/4, SE 1/4 NW 1/4	in Navajo Indian reservation	<sup>a</sup> 317.85
A, D	T. 33 S., R. 24 E., Sec. 9: SE 1/4 NE 1/4 Sec. 33: SE 1/4 NE 1/4	near Monticello	80.00
A, D	T. 31 S., R. 25 E. Sec. 23: S 1/2 NE 1/4, SE 1/4 NW 1/4, N 1/2 SW 1/4, NE 1/4 SE 1/4	west Summit Point	240.00
A, D	T. 32 S., R. 25 E., Sec. 1: SE 1/4 SW 1/4 Sec. 12: SW 1/4 NE 1/4 Sec. 23: NW 1/4 NE 1/4, N 1/2 SE 1/4 Sec. 24: S 1/2 NE 1/4 Sec. 29: N 1/2	Summit/west Summit Point	600.00
A, D	T. 33 S., R. 25 E. Sec. 13: SE 1/4 Sec. 19: NE 1/4 Sec. 24: SW 1/4	east of Monticello	480.00
A, D	T. 38 S., R. 25 E. Sec. 31: Lots 2, 3, 4	north of Hatch Trading Post	109.17

TABLE 10 (Continued)

<u>Designation</u>	<u>Legal Description</u>	<u>Geographic Area</u>	<u>Acreage</u>
A, D	T. 39 S., R. 25 E. Sec. 15: S 1/2	east of Hatch Trading Post	320.00
A, D	T. 32 S., R. 26 E. Sec. 14: Lots 1, 2, 3, 4 Sec. 15: SE 1/4 SW 1/4 Sec. 19: N 1/2 SE 1/4 Sec. 23: Lots 1, 2, 3, 4 Sec. 26: Lots 1, 2, 3, 4	east summit	312.35
A, D	T. 33 S., R. 26 E. Sec. 9: W 1/2 SW 1/4 Sec. 10: SE 1/4 NE 1/4 Sec. 14: Lots 3, 4 Sec. 19: SW 1/4 SE 1/4 Sec. 30: W 1/2 NE 1/4, SE 1/4 NE 1/4 Sec. 31: E 1/2 NE 1/4, SW 1/4 NE 1/4, SE 1/4 NW 1/4	north and west of Ucolo	488.04
A, D	T. 34 S., R. 26 E. Sec. 33: SW 1/4 NE 1/4 NW 1/4 SW 1/4, SE 1/4 SW 1/4	southeast of Eastland	120.00
A, D	T. 35 S., R. 26 E. Sec. 31: S 1/2 NW 1/4, N 1/2 SW 1/4, SW 1/4 SW 1/4	Cedar Point	200.00
<u>San Juan County Landfill</u>			
C, D	T. 39 S., R. 13 E. Sec. 1: a portion of SE 1/4 SW 1/4, SW 1/4 SE 1/4 Sec. 12: a portion of NW 1/4 NE 1/4, NE 1/4 NW 1/4	between Clay Hills & Halls Crossing	20.00
C, D	T. 42 S., R. 19 E. Sec. 6: a portion of SW 1/4	near Mexican Hat	10.00

TABLE 10 (Concluded)

<u>Designation</u>	<u>Legal Description</u>	<u>Geographic Area</u>	<u>Acreage</u>
<u>San Juan County Landfill (Concluded)</u>			
C, D	T. 40 S., R. 21 E. Sec. 27: E 1/2 E 1/2 NE 1/4 SW 1/4	near Bluff	10.00
C, D	T. 40 S., R. 23 E. Sec. 27: a portion of NE 1/4	near Montezuma Creek	10.00
TOTAL			6,426.21

NOTE: Each parcel is designated by letter as to the type(s) of disposal for which it is suitable, and under what authority, as follows:

- A Tracts uneconomic to manage, suitable for sale under authority of Sec. 203(a)(1) of FLPMA.
- B Acquired tracts, suitable for sale under authority of Sec. 203(a)(2) of FLPMA.
- C Public objective tracts, suitable for sale under authority of Sec. 203(a)(3) of FLPMA.
- D Tracts suitable for exchange under authority of Sec. 206(a) of FLPMA.
- E Tracts suitable for recreation and public purpose (R&PP) patent under authority of the R&PP Act of 1926 and Sec. 212 of FLPMA.
- F Tracts suitable for desert land entry (DLE patent) under the authority of the Act of March 3, 1877 as amended by the Act of March 3, 1891.

<sup>a</sup>The tracts identified in the Navajo Indian reservation will not be considered available to the public for 5 years after adoption of the RMP, in case they are wanted by the Navajo tribe.



required for sale of a tract that was not identified for sale in the RMP.

All of the parcels listed in table 10 were examined for resource conflicts. Those parcels that were needed for use in management of other resource programs are not included for disposal.

#### 4220 WITHDRAWAL PROCESSING AND REVIEW

##### MANAGEMENT OBJECTIVE

- + To continue withdrawal review, remove unneeded withdrawals, and process new withdrawals as needed.

##### GENERAL MANAGEMENT GUIDANCE

FLPMA requires BLM to review agency withdrawals and prior C&MU classifications. This is done in response to schedules prepared by USO, or upon special BLM or agency request. SJRA would review other agency withdrawals (24,140 acres). After review, withdrawals found to be obsolete can be removed. New withdrawals are processed upon request from BLM or other federal agencies, but can be made only by the Secretary or by Congress.

C&MU classifications remain in force until either the classification is lifted or the lands are formally withdrawn. The RMP does not affect existing land leases, which have been classified under the R&PP Act or the Small Tract Acts.

##### SPECIFIC MANAGEMENT PRESCRIPTIONS

<u>Secretarial Withdrawals Requested</u>	<u>Acres</u>
	278,730
C&MU classifications	
(made prior to the RMP)	92,130
Acquired lands	9,730
Lands open prior to the RMP	176,870
- Butler Wash ACEC	
- Cedar Mesa ACEC, partial	
(Grand Gulch and Valley of	
the Gods special emphasis areas	
and ROS P-class areas)	
- Indian Creek ACEC	
- Scenic Highway Corridor ACEC	
- ROS SPM-class area in San Juan River SRMA	

- Pearson Canyon SRMA
- developed recreation sites

#### 4311 FOREST MANAGEMENT

##### MANAGEMENT OBJECTIVE

- + To allow use of woodland products in areas specified for this use; and to preserve woodland products in other areas to meet RMP goals.

##### GENERAL MANAGEMENT GUIDANCE

SJRA manages woodland products by controlling harvests and sales. SJRA sells woodland products in designated areas for fuelwood, posts, Christmas trees, ornamental or medicinal purposes, and other uses as demand arises. Areas would be designated after adoption of the RMP through activity plans or site-specific NEPA documents prepared at the time areas are proposed. Fuelwood harvest is limited to pinyon and juniper. Onsite use of wood products by recreationists (for example, campfires) is allowed except where specifically excluded in certain areas under the RMP.

All forest lands in SJRA would be assigned to one of four categories in activity plans prepared following adoption of the RMP. The categories are (1) lands available for intensive management of forest products; (2) lands available for restricted management of forest products; (3) lands where forests are managed to enhance other uses; and (4) forest lands not available for management of forest products.

RMP goals and management objectives would be used to determine which areas are assigned to the four categories, and to impose conditions on forest product use.

Prior to any land treatment project (such as chainings) that would remove woodland products, SJRA strives first for sale and second for free use of those products.

##### SPECIFIC MANAGEMENT PRESCRIPTIONS

<u>Fuelwood Harvest</u>	<u>Acres</u>
Designated for private harvest	
of dead fuelwood	1,400,920

Standard conditions	482,510
Special conditions	918,410
Surface restrictions to protect:	
- Alkali Ridge ACEC	
- Cedar Mesa ACEC, partial	
- Shay Canyon ACEC	
- floodplains, riparian/aquatic areas	
- sensitive soils	
- most ROS SPNM-class area	
- existing land leases	
Seasonal restrictions to protect:	
- bighorn sheep lambing and rutting areas	
- antelope fawning area	
- deer winter range	
Limited onsite collection of dead fuelwood (for campfires)	376,520
To protect	
- Bridger Jack Mesa ACEC	
- Butler Wash ACEC	
- Cedar Mesa ACEC, partial	
(Grand Gulch and Valley of the Gods special emphasis areas)	
- Dark Canyon ACEC	
- Hovenweep ACEC	
- Indian Creek ACEC	
- Lavender Mesa ACEC	
- Scenic Highway Corridor ACEC	
- most ROS P-class areas	
Exclude from private dead fuelwood harvest	250
To protect	
- developed recreation sites	
Designated for private and commercial use of woodland products	1,400,920
Standard conditions	482,510
Special conditions	918,410
Surface restrictions to protect:	
- Alkali Ridge ACEC	
- Cedar Mesa ACEC, partial	
- Shay Canyon ACEC	
- floodplains, riparian/aquatic areas	
- sensitive soils	
- most ROS SPNM-class area	
- existing land leases	
Seasonal restrictions to protect:	
- bighorn sheep lambing and rutting areas	
- antelope fawning area	
- deer winter range	

Exclude from woodland products use	378,270
To protect	
- Bridger Jack Mesa ACEC	
- Butler Wash ACEC	
- Cedar Mesa ACEC, partial	
(Grand Gulch and Valley of the Gods special emphasis areas)	
- Dark Canyon ACEC	
- Hovenweep ACEC	
- Indian Creek ACEC	
- Lavender Mesa ACEC	
- Scenic Highway Corridor ACEC	
- five identified mesa tops	
- most ROS P-class areas	
- ROS SPNM-class area in San Juan River SRMA	
- Pearson Canyon SRMA	
- developed recreation sites	

#### 4312 FOREST DEVELOPMENT

##### MANAGEMENT OBJECTIVE

- + To manage forest resources for sustained yield where woodland products are sold, so long as RMP goals are met.

##### GENERAL MANAGEMENT GUIDANCE

SJRA may develop forest resources for sustained yield, where feasible, in areas where sale of forest products is allowed under the RMP. The RMP may impose conditions of use or reclamation requirements in certain areas.

##### SPECIFIC MANAGEMENT PRESCRIPTIONS

None developed.

#### 4322 GRAZING MANAGEMENT

##### MANAGEMENT OBJECTIVE

- + To continue to manage rangelands to produce livestock forage and water to meet current demand, so long as primitive recreational opportunities in Dark Canyon ACEC and the Grand Gulch area of Cedar Mesa ACEC and five mesa tops in crucial bighorn sheep habitat are protected; and to manage identified areas to provide an ecological baseline for range studies.

## GENERAL MANAGEMENT GUIDANCE

Changes in livestock use may be made in response to resource conflicts identified in the RMP or as a result of monitoring range condition and trend. Monitoring takes into account actual use, utilization, trend, and climate, to measure vegetative change and to determine the need for subsequent livestock adjustments. Any change (increase or decrease) in available forage allocation would be made on an individual allotment basis. Equal allocation would be made to livestock and wildlife in allotments with crucial wildlife habitat, so long as it is consistent with management objectives for livestock and wildlife numbers. Grazing use decisions would be issued within 5 years after publication of the rangeland program summary (RPS) following adoption of the RMP.

Future changes in existing seasons of use or kind of livestock may be made, provided (1) that physiological needs of plants are met for sustained yield forage production and (2) that resource conflicts do not result. The decision whether to allow a change in season of use or kind of livestock would be made after assessing the proposal in NEPA documents prepared at that time.

SJRA grazing allotments have been evaluated as to resource potential and conflicts, and assigned a management category (table 11) in accordance with BLM range policy. BLM staff have contacted the grazing permittees, and the permittees have agreed with the assigned categories. BLM endeavors to improve allotments with identified resource problems.

The RMP identifies allotments where existing allotment management plans (AMPs) should be implemented or modified, or where new AMPs should be prepared and implemented (table 11). AMPs are activity plans prepared after approval of the RMP to meet its stated objectives. For a specific allotment, the AMP describes in detail management objectives, grazing system to be used, and range improvements to be constructed. Grazing systems such as deferred rotation and rest rotation could be used. Ecological site information is used to establish management objectives, management potential, and treatment

potential within the allotment. Table 12 shows current and projected ecological condition by percentage of allotment.

Grazing systems would be maintained, revised, or implemented. Grazing system implementation would be based on consideration of (1) objectives detailed in an AMP; (2) resource characteristics detailed in the RMP; (3) vegetation characteristics determined by monitoring; (4) availability of water; (5) operator requests; and (6) implementation costs.

Range improvements facilitate grazing management. Areas available for improvements are determined in the RMP; potential for rangeland treatments is determined by using ecological site information. The extent, location, and scheduling of specific range projects would be determined on an individual allotment basis, and would depend on operator contributions and BLM funding capability. Maintenance of existing land treatments would be given preference over construction of new land treatments. Maintenance of existing land treatments and construction of new land treatments would be allowed only to meet or maintain active preference.

An investment analysis would be done where an AMP suggests projects that would require expenditure of rangeland improvement funds. The analysis serves to (1) identify allotments where there is opportunity for a positive return on the investment; (2) integrate economic, resource, and social objectives in prioritizing investments; and (3) incorporate priorities and detailed investment analysis in annual work plans. The analysis would be done when a specific project is proposed.

SJRA administers grazing on 312,660 acres available for livestock use within Glen Canyon NRA under BLM policy and regulations and the terms of BLM-NPS agreements. SJRA also administers grazing privileges on 100 acres within Hovenweep National Monument (NM).

Coordination of grazing responsibilities between BLM and NPS on lands within the NRA was addressed in the Umbrella Memorandum of Understanding [BLM and NPS, 1984], signed by the directors of NPS and BLM, and in the Interagency

TABLE 11

## Grazing Actions to be Implemented, by Allotment

<u>Allotment</u>	<u>Management Category</u>	<u>Past 5-Year Average AUMs</u>	<u>Future AUMs</u>	<u>Season of Use</u>	<u>AMP</u>	<u>New Land Treatments (acres)</u>	<u>Other Land Uses</u>	<u>Acres</u>
6801 ALKALI CANYON	I	1,349	1,349	11/01 to 05/31	Yes	165	Alkali Ridge ACEC	6,520
6802 ALKALI POINT	I	282	395	05/16 to 06/20	Yes	900	Alkali Ridge ACEC	6,790
4830 BEAR TRAP	C	102	102	07/15 to 11/30	No	None	None	
4826 BIG INDIAN	I	750	812	12/05 to 05/25	Yes	500	None	
6804 BLACK STEER	C	314	285	12/01 to 04/30	Yes	None	Land disposal	320
6835 BLUE MOUNTAIN	C	20	20	07/01 to 09/30	No	None	None	
6803 BLUFF BENCH	C	33	33	12/01 to 03/11	No	None	None	
6805 BROWN CANYON	M	61	61	11/16 to 03/15	No	None	None	
6846 BUG-SQUAW	I	991	991	01/01 to 05/20	Yes	None	None	
6806 BULLDOG	C	316	307	10/01 to 12/31 06/01 to 09/30			Land disposal Alkali Ridge ACEC	400 2,720
6808 CAVE CANYON	I	1,895	1,892	11/01 to 05/15	Yes		Alkali Ridge ACEC Land disposal	8,230 110

4827	CHURCH ROCK	C	34	34	12/01 to 03/31	No	None	None	
6836	COMB WASH	I	2,870	2,903	10/16 to 05/31	Yes	290	Land disposal Grand Gulch SRMA Hole-in-the-Rock Trail Cedar Mesa ACEC Scenic Highway Corridor ACEC	120 65,610 790 59,530  1,250
6838	CORRAL	C	16	16	05/20 to 07/19	No	None	None	
6849	COTTONWOOD	I	1,080	1,104	10/16 to 06/10	Yes	190	Butler Wash Arch Dist Scenic Highway Corridor ACEC Grand Gulch SRMA	2,030  2,700 8,600
6811	CROSS CANYON	I	2,289	2,343	11/01 to 05/31	Yes	435	Hovenweep ACEC Tin Cup Arch Dist	1,500 2,610
6812	DEVILS CANYON	M	195	195	06/01 to 09/30			Alkali Ridge ACEC	7,100
6813	DODGE CANYON	C	100	100	05/01 to 10/15	No	None	None	
6814	DODGE POINT	C	13	13	06/01 to 10/31	No	None	None	
4804	DRY FARM	C	34	34	05/01 to 05/30	No	None	None	
4820	DRY VALLEY- DEER NECK	M	1,008	1,008	12/01 to 05/10	Yes	None	None	
4814	EAST CANYON	I	1,045	1,051	12/01 to 04/15	Yes	50	None	
6815	EAST LEAGUE	M	1,800	1,800	10/16 to 05/15	Yes		San Juan River SRMA	450

TABLE 11 (Continued)

<u>Allotment</u>	<u>Management Category</u>	<u>Past 5-Year Average AUMs</u>	<u>Future AUMs</u>	<u>Season of Use</u>	<u>AMP</u>	<u>New Land Treatments (acres)</u>	<u>Other Land Uses</u>	<u>Acres</u>
4810 EAST SUMMIT	C	25	17	04/01 to 12/31			Land disposal	230
4811 HARTS DRAW	I	2,359	2,371	10/16 to 06/15	Yes	110	Land disposal Indian Creek ACEC Snay Canyon ACEC Indian Creek SRMA	40 5,760 1,250 29,000
4825 HARTS POINT	I	478	485	03/01 to 05/31	Yes	55	None	
6848 HORSE CANYON	M	310	310	11/01 to 03/31	No	None	None	
6816 HORSEHEAD CANYON	C	83	83	05/16 to 10/31	No	None	None	
4813 HURRAH PASS	I	246	246	11/25 to 03/31	Yes	None	None	
4815 INDIAN CREEK	I	5,171	5,171	10/16 to 06/15	Yes		Grazing exclusion: Bridger Jack Mesa ACEC Lavender Mesa ACEC Bridger Jack Mesa ACEC Butler Wash ACEC Dark Canyon ACEC Indian Creek ACEC Lavender Mesa ACEC Snay Canyon ACEC Fable Valley Arch Dist Beef Basin SRMA Indian Creek SRMA	5,290 640 5,290 13,870 46,040 7,340 640 520 5,030 66,450 51,000
4822 INDIAN ROCK	I	217	217	11/15 to 03/31	No	None	None	

6818 JOHNSON CREEK	C	91	91	06/05 to 10/14	No	None	None	
6833 LAKE CANYON	I	4,777	4,821	10/06 to 06/05	Yes	355	Grazing exclusion:	
							Wingate Mesa	24,600
							Grand Gulch	11,200
							Grand Gulch ACEC	17,970
							Moki-Red Canyon ACEC	63,340
							Scenic Highway	
							Corridor ACEC	21,290
							Grand Gulch SRMA	66,000
							Cedar Mesa Arch Dist	68,130
							Hole-in-the-Rock Trail	3,730
6839 LAWS	C	5	5	09/01 to 3/31	No	None	None	
6819 LITTLE BOULDER	M	280	280	04/01 to 11/30	No	None	None	
4801 LONE CEDAR	I	1,108	1,123	12/01 to 04/30	Yes	80	None	
6820 LONG CANYON	C	116	116	05/15 to 10/15	No	None	None	
6821 LYMAN	C	6	6	03/01 to 02/28	No	None	None	
4819 MAIL STATION	M	1,187	1,187	11/01 to 04/30	Yes	None	None	
6822 McCRACKEN	I	602	602	01/01 to 05/15	Yes		San Juan River SRMA	2,420
6823 MONTEZUMA	I	1,581	1,581	11/01 to 05/31	Yes	55	Alkali Ridge ACEC	7,250
							Three Kiva Pueblo	1
4806 MONTICELLO COWBOY	M	618	618	11/16 to 04/30	Yes	None	None	
6825 MONUMENT CANYON	I	434	445	12/05 to 05/31	Yes	165	Land disposal	320
6824 OWENS DUGOUT	C	265	265	11/25 to 03/31	No	None	None	

TABLE 11 (Continued)

<u>Allotment</u>	<u>Management Category</u>	<u>Past 5-Year Average AUMs</u>	<u>Future AUMs</u>	<u>Season of Use</u>	<u>AMP</u>	<u>New Land Treatments (acres)</u>	<u>Other Land Uses</u>	<u>Acres</u>
6845 PEARSON POINT	M	100	100	03/01 to 12/31	No	None	None	
6827 PERKINS BROS.	I	3,411	3,411	11/01 to 05/31	Yes		San Juan River SRMA Grand Gulch SRMA Cedar Mesa Arch Dist Hole-in-the-Rock Trail Sand Island River House Ruin Cedar Mesa ACEC Scenic Highway Corridor ACEC	12,230 47,380 40,450 860 1 1 350 3,800
4807 PETERS CANYON	C	90	50	11/16 to 03/31	No	None	None	
4805 PETERS POINT	I	135	146	05/01 to 10/31	Yes	90	None	
6841 PIUTE KNOLL	C	25	0	05/01 to 10/31			Land disposal	160
6842 ROGERS	C	0	0	01/01 to 4/30	No	None	None	
6847 ROUNDUP CORRAL	C	4	4	06/30 to 07/01 09/30 to 10/01	No	None	None	
6724 SAGE FLAT	C	13	13	06/01 to 06/30	No	None	None	
6716 SAGE GROUSE	C	7	0	05/01 to 05/31			Land disposal	320
6850 SHUMWAY POINT	M	496	496	11/01 to 03/31	No	None	None	



6834 SLICKHORN	I	1,716	1,927	10/16 to 06/15	Yes	1,685	Hole-in-the-Rock Trail 730 Grand Gulch SRMA 127,210 Cedar Mesa ACEC 8,690 Grand Gulch ACEC 31,160 Scenic Highway Corridor ACEC 132,810 Cedar Mesa Arch Dist 127,210
4824 SOUTH CANYON	C	109	109	05/16 to 11/30	No	None	None
4823 SPRING CREEK	I	90	96	05/01 to 10/31	No	45	None
4812 SPRING CREEK WEST	I	152	158	06/16 to 10/15	No	None	None
6828 SQUAW CANYON	I	74	74	11/01 to 05/15	Yes	None	None
4831 STATE LINE	C	16	16	11/25 to 02/28	No	None	None
6830 STEVENS	C	43	43	03/01 to 02/28	No	None	None
4818 SUMMIT CANYON	C	40	40	07/01 to 08/31	No	None	None
6831 TANK BENCH- BRUSHY BASIN	I	2,992	3,008	10/16 to 06/10	Yes	130	Grand Gulch SRMA 5,900 Scenic Highway Corridor ACEC 2,170
4802 TANK DRAW	I	1,705	1,710	12/01 to 04/30	Yes	40	None
6844 TEXAS-MULEY	I	1,504	1,620	11/15 to 05/31	Yes	930	Cedar Mesa Arch Dist 66,600 Grand Gulch SRMA 66,600 Mule Canyon Ruin 1 Cedar Mesa ACEC 67,730 Scenic Highway Corridor ACEC 9,230

TABLE 11 (Concluded)

<u>Allotment</u>	<u>Management Category</u>	<u>Past 5-Year Average AUMs</u>	<u>Future AUMs</u>	<u>Season of Use</u>	<u>AMP</u>	<u>New Land Treatments (acres)</u>	<u>Other Land Uses</u>	<u>Acres</u>
4817 UPPER EAST CANYON	C	18	15	05/01 to 10/31	No	None	Land disposal	120
4803 VEGA CREEK	C	69	69	10/01 to 10/31	No	None	None	
6832 VERDURE CREEK	C	103	103	03/01 to 02/28	No	None	None	
6837 WHITE CANYON	I	3,572	4,981	03/01 to 02/28	Yes	820	Grazing exclusion: mesa tops (desert bighorn sheep)	56,740
							Land disposal	25
							Dark Canyon	16,000
							Scenic Highway Corridor ACEC	31,460
6840 WHITE MESA	I	2,741	2,805	12/01 to 05/31	Yes	510	Scenic Highway Corridor ACEC	1,300
							Grand Gulch SRMA	2,600

TABLE 12

## Current and Projected Ecological Condition by Percentage of Allotment

Allotment, Ecological Condition Class, and Livestock Forage Condition	Current	Future	Allotment, Ecological Condition Class, and Livestock Forage Condition	Current	Future
ALKALI CANYON 6801			BIG INDIAN 4826 (Concluded)		
Native			Seeding		
Climax	0	3	Excellent	0	4
Late seral	28	28	Good	0	0
Mid seral	26	26	Fair	0	0
Early seral	30	27	Poor	0	0
Rock outcrop/badlands	9	9			
Seeding			BLACK STEER 6804		
Excellent	7	4	Native		
Good	0	3	Climax	0	1
Fair	0	0	Late seral	9	15
Poor	0	0	Mid seral	61	53
			Early seral	15	15
ALKALI POINT 6802			Rock outcrop/badlands	15	16
Native			Seeding <sup>b</sup>		
Climax	0	0			
Late seral	10	10	BLUE MOUNTAIN 6835		
Mid seral	13	13	Native		
Early seral	53	41	Climax	0	0
Rock outcrop/badlands	6	6	Late seral	23	23
Seeding			Mid seral	77	77
Excellent	18	21	Early seral	0	0
Good	0	9	Rock outcrop/badlands	0	0
Fair	0	0	Seeding <sup>b</sup>		
Poor	0	0			
BEAR TRAP 4830			BLUFF BENCH 6803		
Native			Native		
Climax	0	0	Climax	63	63
Late seral	0	0	Late seral	0	0
Mid seral	100	100	Mid seral	16	16
Early seral	0	0	Early seral	0	0
Rock outcrop/badlands	0	0	Rock outcrop/badlands	21	21
Seeding <sup>b</sup>			Seeding <sup>b</sup>		
BIG INDIAN 4826			BROWN CANYON 6805		
Native			Native		
Climax	0	0	Climax	0	0
Late seral	0	5	Late seral	0	0
Mid seral	47	44	Mid seral	30	30
Early seral	24	18	Early seral	50	50
Rock outcrop/badlands	29	29	Rock outcrop/badlands	20	20
			Seeding <sup>b</sup>		

TABLE 12 (Continued)

Allotment, Ecological Condition Class, and Livestock Forage Condition	Current	Future	Allotment, Ecological Condition Class, and Livestock Forage Condition	Current	Future
BUG-SQUAW 6846			COMB WASH 6836		
Native			Native		
Climax	3	3	Climax	3	5
Late seral	4	9	Late seral	20	22
Mid seral	53	50	Mid seral	44	40
Early seral	21	19	Early seral	14	12
Rock outcrop/badlands	7	7	Rock outcrop/badlands	17	17
Seeding			Seeding		
Excellent	9	6	Excellent	0	2
Good	0	6	Good	0	0
Fair	3	0	Fair	1	1
Poor	0	0	Poor	1	1
BULLDOG 6806			CORRAL 6838		
Native			Native		
Climax	4	4	Climax	0	0
Late seral	0	0	Late seral	23	23
Mid seral	81	77	Mid seral	77	77
Early seral	2	6	Early seral	0	0
Rock outcrop/badlands	6	6	Rock outcrop/badlands	0	0
Seeding			Seeding <sup>b</sup>		
Excellent	0	4			
Good	7	0			
Fair	0	3			
Poor	0	0			
CAVE CANYON 6808			COTTONWOOD 6849		
Native			Native		
Climax	0	4	Climax	0	1
Late seral	39	38	Late seral	9	14
Mid seral	24	24	Mid seral	60	56
Early seral	26	23	Early seral	16	14
Rock outcrop/badlands	11	11	Rock outcrop/badlands	15	15
Seeding <sup>b</sup>			Seeding <sup>b</sup>		
CHURCH ROCK 4827			CROSS CANYON 6811		
Native			Native		
Climax	0	0	Climax	0	0
Late seral	0	6	Late seral	6	6
Mid seral	64	58	Mid seral	56	57
Early seral	0	0	Early seral	28	26
Rock outcrop/badlands	36	36	Rock outcrop/badlands	8	8
Seeding <sup>b</sup>			Seeding		
			Excellent	0	2
			Good	2	0
			Fair	0	1
			Poor	0	0

TABLE 12 (Continued)

Allotment, Ecological Condition Class, and Livestock Forage Condition	Current	Future	Allotment, Ecological Condition Class, and Livestock Forage Condition	Current	Future
DEVILS CANYON 6812			EAST CANYON 4814		
Native			Native		
Climax	0	0	Climax	0	0
Late seral	0	0	Late seral	0	5
Mid seral	28	27	Mid seral	52	51
Early seral	66	67	Early seral	44	39
Rock outcrop/badlands	6	6	Rock outcrop/badlands	4	4
Seeding <sup>b</sup>			Seeding		
DODGE CANYON 6813			Excellent	0	1
Native			Good	0	0
Climax	0	0	Fair	0	0
Late seral	60	60	Poor	0	0
Mid seral	35	35			
Early seral	0	0	EAST LEAGUE 6815		
Rock outcrop/badlands	5	5	Native		
Seeding <sup>b</sup>			Climax	34	38
DODGE POINT 6814			Late seral	36	34
Native			Mid seral	12	11
Climax	0	0	Early seral	6	5
Late seral	33	33	Rock outcrop/badlands	12	12
Mid seral	19	19	Seeding <sup>b</sup>		
Early seral	41	41			
Rock outcrop/badlands	7	7	EAST SUMMIT 4810		
Seeding <sup>b</sup>			Native		
DRY FARM 4804			Climax	5	a
Native			Late seral	0	0
Climax	0	0	Mid seral	95	0
Late seral	7	7	Early seral	0	0
Mid seral	93	93	Rock outcrop/badlands	0	0
Early seral	0	0	Seeding <sup>b</sup>		
Rock outcrop/badlands	0	0			
Seeding <sup>b</sup>			HARTS DRAW 4811		
DRY VALLEY-DEER NECK 4820			Native		
Native			Climax	2	3
Climax	0	0	Late seral	14	18
Late seral	0	4	Mid seral	47	42
Mid seral	42	43	Early seral	4	4
Early seral	54	49	Rock outcrop/badlands	30	30
Rock outcrop/badlands	4	4	Seeding		
Seeding <sup>b</sup>			Excellent	0	2
			Good	2	0
			Fair	1	0
			Poor	0	1

TABLE 12 (Continued)

<u>Allotment, Ecological Condition Class, and Livestock Forage Condition</u>	<u>Current</u>	<u>Future</u>	<u>Allotment, Ecological Condition Class, and Livestock Forage Condition</u>	<u>Current</u>	<u>Future</u>
<b>HARTS POINT 4825</b>			<b>INDIAN ROCK 4822</b>		
<u>Native</u>			<u>Native</u>		
Climax	0	0	Climax	0	0
Late seral	0	7	Late seral	2	2
Mid seral	66	59	Mid seral	18	17
Early seral	0	0	Early seral	49	50
Rock outcrop/badlands	34	34	Rock outcrop/badlands	31	31
<u>Seeding<sup>b</sup></u>			<u>Seeding<sup>b</sup></u>		
<b>HORSE CANYON 6848</b>			<b>JOHNSON CREEK 6818</b>		
<u>Native</u>			<u>Native</u>		
Climax	8	8	Climax	0	0
Late seral	56	56	Late seral	0	0
Mid seral	11	11	Mid seral	86	86
Early seral	21	21	Early seral	0	0
Rock outcrop/badlands	4	4	Rock outcrop/badlands	5	5
<u>Seeding<sup>b</sup></u>			<u>Seeding</u>		
<b>HORSEHEAD CANYON 6816</b>			Excellent	0	0
<u>Native</u>			Good	0	0
Climax	1	1	Fair	9	9
Late seral	47	44	Poor	0	0
Mid seral	32	33	<b>LAKE CANYON 6833</b>		
Early seral	14	16	<u>Native</u>		
Rock outcrop/badlands	6	6	Climax	11	13
<u>Seeding<sup>b</sup></u>			Late seral	24	24
<b>HURRAH PASS 4813</b>			Mid seral	20	19
<u>Native</u>			Early seral	7	6
Climax	8	10	Rock outcrop/badlands	38	38
Late seral	18	20	<u>Seeding</u>		
Mid seral	38	35	Excellent	0	c
Early seral	6	5	Good	0	0
Rock outcrop/badlands	30	30	Fair	0	0
<u>Seeding<sup>b</sup></u>			Poor	0	0
<b>INDIAN CREEK 4815</b>			<b>LAWS 6839</b>		
<u>Native</u>			<u>Native</u>		
Climax	3	4	Climax	0	0
Late seral	11	14	Late seral	0	0
Mid seral	39	36	Mid seral	29	29
Early seral	20	18	Early seral	51	51
Rock outcrop/badlands	24	24	Rock outcrop/badlands	20	20
<u>Seeding</u>			<u>Seeding<sup>b</sup></u>		
Excellent	2	2			
Good	1	2			
Fair	0	0			
Poor	0	0			

TABLE 12 (Continued)

Allotment, Ecological Condition Class, and Livestock Forage Condition	Current	Future	Allotment, Ecological Condition Class, and Livestock Forage Condition	Current	Future
LITTLE BOULDER 6819			MAIL STATION 4819		
Native			Native		
Climax	5	5	Climax	0	0
Late seral	15	15	Late seral	0	9
Mid seral	60	60	Mid seral	89	80
Early seral	6	6	Early seral	2	2
Rock outcrop/badlands	7	7	Rock outcrop/badlands	9	9
Seeding			Seeding <sup>b</sup>		
Excellent	1	1			
Good	6	4	McCRACKEN 6822		
Fair	0	3	Native		
Poor	0	0	Climax	36	37
			Late seral	12	12
LONE CEDAR 4801			Mid seral	14	13
Native			Early seral	0	0
Climax	0	0	Rock outcrop/badlands	38	38
Late seral	0	7	Seeding <sup>b</sup>		
Mid seral	67	60			
Early seral	0	0	MONTEZUMA CANYON 6823		
Rock outcrop/badlands	33	33	Native		
Seeding			Climax	2	3
Excellent	0	c	Late seral	16	17
Good	0	0	Mid seral	21	23
Fair	0	0	Early seral	40	36
Poor	0	0	Rock outcrop/badlands	11	11
			Seeding		
LONG CANYON 6820			Excellent	5	3
Native			Good	2	4
Climax	0	0	Fair	3	2
Late seral	33	33	Poor	0	1
Mid seral	21	21			
Early seral	39	39	MONTICELLO COWBOY 4806		
Rock outcrop/badlands	7	7	Native		
Seeding <sup>b</sup>			Climax	0	0
			Late seral	0	8
LYMAN 6821			Mid seral	81	74
Native			Early seral	11	10
Climax	0	0	Rock outcrop/badlands	8	8
Late seral	22	22	Seeding <sup>b</sup>		
Mid seral	0	0			
Early seral	62	62			
Rock outcrop/badlands	16	16			
Seeding <sup>b</sup>					

TABLE 12 (Continued)

Allotment, Ecological Condition Class, and Livestock Forage Condition	Current	Future	Allotment, Ecological Condition Class, and Livestock Forage Condition	Current	Future
MONUMENT 6825			PETERS CANYON 4807		
<u>Native</u>			<u>Native</u>		
Climax	3	5	Climax	0	0
Late seral	19	21	Late seral	0	0
Mid seral	46	44	Mid seral	100	95
Early seral	16	14	Early seral	0	5
Rock outcrop/badlands	7	7	Rock outcrop/badlands	0	0
<u>Seeding</u>			<u>Seeding<sup>b</sup></u>		
Excellent	0	4			
Good	5	0	PETERS POINT 4805		
Fair	4	3	<u>Native</u>		
Poor	0	2	Climax	0	0
			Late seral	0	0
OWENS DUGOUT 6824			Mid seral	6	6
<u>Native</u>			Early seral	60	58
Climax	0	2	Rock outcrop/badlands	0	0
Late seral	20	24	<u>Seeding</u>		
Mid seral	55	49	Excellent	17	19
Early seral	0	0	Good	17	17
Rock outcrop/badlands	25	25	Fair	0	0
<u>Seeding<sup>b</sup></u>			Poor	0	0
PEARSON POINT 6845			PIUTE KNOLL 6841		
<u>Native</u>			<u>Native</u>		
Climax	0	0	Climax	0	a
Late seral	0	0	Late seral	50	
Mid seral	51	49	Mid seral	50	
Early seral	9	11	Early seral	0	
Rock outcrop/badlands	6	6	Rock outcrop/badlands	0	
<u>Seeding</u>			<u>Seeding<sup>b</sup></u>		
Excellent	0	17			
Good	34	0	ROGERS 6842		
Fair	0	17	<u>Native</u>		
Poor	0	0	Climax	0	0
			Late seral	0	0
PERKINS BROTHERS 6827			Mid seral	60	60
<u>Native</u>			Early seral	30	30
Climax	17	22	Rock outcrop/badlands	10	10
Late seral	53	50	<u>Seeding<sup>b</sup></u>		
Mid seral	22	20			
Early seral	1	1			
Rock outcrop/badlands	7	7			
<u>Seeding<sup>b</sup></u>					



TABLE 12 (Continued)

Allotment, Ecological Condition Class, and Livestock Forage Condition	Current	Future	Allotment, Ecological Condition Class, and Livestock Forage Condition	Current	Future
ROUNDUP CORRAL 6847			SOUTH CANYON 4824		
Native			Native		
Climax	0	0	Climax	0	0
Late seral	23	23	Late seral	3	3
Mid seral	77	77	Mid seral	97	92
Early seral	0	0	Early seral	0	5
Rock outcrop/badlands	0	0	Rock outcrop/badlands	0	0
Seeding <sup>b</sup>			Seeding <sup>b</sup>		
SAGE FLAT 6724			SPRING CREEK 4823		
Native			Native		
Climax	0	0	Climax	0	0
Late seral	0	0	Late seral	0	0
Mid seral	100	100	Mid seral	81	74
Early seral	0	0	Early seral	0	0
Rock outcrop/badlands	0	0	Rock outcrop/badlands	0	0
Seeding <sup>b</sup>			Seeding		
SAGE GROUSE 6716			Excellent	8	12
Native			Good	0	0
Climax	0	a	Fair	11	0
Late seral	0	0	Poor	0	10
Mid seral	100	0			
Early seral	0	0	SPRING CREEK WEST 4812		
Rock outcrop/badlands	0	0	Native		
Seeding <sup>b</sup>			Climax	0	0
SHUMWAY POINT 6850			Late seral	0	0
Native			Mid seral	100	95
Climax	0	0	Early seral	0	5
Late seral	33	33	Rock outcrop/badlands	0	0
Mid seral	33	33	Seeding <sup>b</sup>		
Early seral	27	27			
Rock outcrop/badlands	7	7	SQUAW CANYON 6828		
Seeding <sup>b</sup>			Native		
SLICKHORN 6834			Climax	0	0
Native			Late seral	0	6
Climax	9	11	Mid seral	60	56
Late seral	21	22	Early seral	24	22
Mid seral	31	29	Rock outcrop/badlands	6	6
Early seral	27	24	Seeding		
Rock outcrop/badlands	7	7	Excellent	0	5
Seeding			Good	10	0
Excellent	1	4	Fair	0	5
Good	4	0	Poor	0	0
Fair	0	3			
Poor	0	0			

TABLE 12 (Continued)

Allotment, Ecological Condition Class, and Livestock Forage Condition			Allotment, Ecological Condition Class, and Livestock Forage Condition		
	Current	Future		Current	Future
STATE LINE 4831			TEXAS-MULEY 6844		
Native			Native		
Climax	0	0	Climax	2	2
Late seral	0	0	Late seral	0	6
Mid seral	100	100	Mid seral	64	59
Early seral	0	0	Early seral	21	19
Rock outcrop/badlands	0	0	Rock outcrop/badlands	9	9
Seeding <sup>b</sup>			Seeding		
STEVENS 6830			Excellent	2	3
Native			Good	0	1
Climax	0	0	Fair	2	0
Late seral	0	0	Poor	0	1
Mid seral	0	0	UPPER EAST CANYON 4817		
Early seral	90	90	Native		
Rock outcrop/badlands	10	10	Climax	0	0
Seeding <sup>b</sup>			Late seral	0	0
SUMMIT CANYON 4818			Mid seral	100	100
Native			Early seral	0	0
Climax	0	0	Rock outcrop/badlands	0	0
Late seral	0	0	Seeding <sup>b</sup>		
Mid seral	100	100	VEGA CREEK 4803		
Early seral	0	0	Native		
Rock outcrop/badlands	0	0	Climax	0	0
Seeding <sup>b</sup>			Late seral	0	0
TANK BENCH-BRUSHY BASIN 6831			Mid seral	100	100
Native			Early seral	0	0
Climax	14	17	Rock outcrop/badlands	0	0
Late seral	23	23	Seeding <sup>b</sup>		
Mid seral	32	30	VERDURE CREEK 6832		
Early seral	7	6	Native		
Rock outcrop/badlands	21	21	Climax	0	0
Seeding			Late seral	53	53
Excellent	1	2	Mid seral	36	36
Good	2	0	Early seral	3	3
Fair	0	1	Rock outcrop/badlands	8	8
Poor	0	0	Seeding <sup>b</sup>		
TANK DRAW 4802					
Native					
Climax	0	0			
Late seral	0	8			
Mid seral	83	76			
Early seral	8	7			
Rock outcrop/badlands	9	9			
Seeding <sup>b</sup>					

TABLE 12 (Concluded)

Allotment, Ecological Condition Class, and Livestock Forage Condition			Allotment, Ecological Condition Class, and Livestock Forage Condition		
	Current	Future		Current	Future
WHITE CANYON 6837			WHITE MESA 6840		
Native			Native		
Climax	15	17	Climax	3	5
Late seral	30	30	Late seral	19	20
Mid seral	33	30	Mid seral	33	31
Early seral	2	2	Early seral	28	25
Rock outcrop/badlands	15	15	Rock outcrop/badlands	11	11
Seeding			Seeding		
Excellent	0	3	Excellent	0	4
Good	3	0	Good	1	0
Fair	2	2	Fair	6	1
Poor	0	1	Poor	0	3

<sup>a</sup>The entire allotment is to be disposed of.

<sup>b</sup>This allotment has no seeding at present, and none is proposed under the RMP.

<sup>c</sup>Less than 1 percent.

Agreement for Grazing Management on Glen Canyon National Recreation Area [BLM and NPS, 1986] signed by the Director, Rocky Mountain Region, NPS, and the State Director, Utah, BLM. These agreements were taken into account in preparing the RMP.

#### SPECIFIC MANAGEMENT PRESCRIPTIONS

##### Grazing Allotments/Licensed Use Acres

Allotments: 70 (69 cattle, 1 sheep)	2,071,450
public lands	1,758,690
Glen Canyon NRA	312,660
Hovenweep NM	100
Allotted to wildlife	17,300
Unallotted	3,200

Licensed use: 55,344 AUMs	1,933,230
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##### Grazing Exclusions Acres

Allotments: 24 (260 AUMs)	138,080
To protect:	
- Bridger Jack Mesa ACEC	
- Grand Gulch area of Cedar Mesa ACEC	
- Dark Canyon ACEC	
- Lavender Mesa ACEC	
- five identified mesa tops	
- Pearson Canyon SRMA	
- developed recreation sites	

##### Other Management Actions Allotments Acres

Seasons of use		
Fall/winter	6	11,200
Fall/winter/spring	36	1,629,820
Summer	24	60,400
Yearlong	4	231,810

AMPs prepared prior to RMP:		
Modify and implement	9	1,148,800

New AMPs:		
Develop and implement	21	698,060

Land Treatments		
Maintain prior treatments	27	57,000
Implement land treatments identified in AMPs	24	232,120

#### Special Designations

2 ACECs	5,930
Bridger Jack Mesa ACEC	5,290
Lavender Mesa ACEC	640
To protect	
- relict vegetation communities	

Specific actions to be implemented on each grazing allotment were shown in table 11.

#### 4331 CULTURAL RESOURCE MANAGEMENT

##### MANAGEMENT OBJECTIVE

- + To manage surface-disturbing actions so as to avoid adverse impacts to natural history, paleontological, and cultural resources as provided by law; and to manage certain cultural resource values for informational potential and public values.

##### GENERAL MANAGEMENT GUIDANCE

Natural history, paleontology, archaeology, and history resources are all administered under this program. By law, BLM is charged with protecting these resources from vandalism and adverse impacts resulting from development, grazing, and recreation activities.

BLM conducts an ongoing inventory for natural history, paleontological, and cultural resources as funding and personnel become available. Identified resources are protected as required by law, regulation, and policy; activity plans for management of specific sites would be prepared if needed. BLM would consult with Utah State Historic Preservation Office and the Advisory Council on Historic Preservation for a formal or informal consultation under Section 106 of the National Historic Preservation Act before approving or implementing any action that may affect a site listed, or eligible for listing, on the National Register of Historic Places.

BLM would manage cultural resources according to three objectives: informational potential, public values, and conservation. Five broad cultural use zones are designated; within each zone, management of cultural resources would concentrate on specific use categories (table 13). These zones and related objectives may be changed without amending the RMP.

TABLE 13

## Cultural Resource Use Zones

<u>Area</u>	<u>Approximate Acres</u>	<u>Approximate % of SJRA</u>	<u>Anticipated Uses</u>
North Abajo	275,000	16	Informational potential Public values
Monticello-Blanding	500,000	28	Informational potential
Grand Gulch Plateau SRMA	400,000	22	
Grand Gulch Archaeologic District	(5,000)	(less than 1)	Informational potential Public values
Remainder of Grand Gulch Plateau SRMA	(395,000)	(22)	Conservation Public values
Southwest Abajo	440,000	25	Informational potential
West Abajo	165,000	9	
Dark Canyon	(102,500)	(6)	Informational potential
Fable Valley	(2,500)	(less than 1)	Conservation
Beef Basin	(60,000)	(3)	Informational potential Public values
APPROXIMATE TOTAL	<u>1,780,000</u>	<u>100</u>	

NOTE: Acreages include only BLM administered public lands. Numbers in parentheses are components of area total.

Cultural properties would be protected from direct and, where possible, indirect adverse impacts from surface-disturbing actions. National Register cultural properties and archaeological districts, and those eligible for designation, would be protected and managed for specific cultural resource uses. Additional cultural properties or archaeological districts may be designated to the National Register if they qualify. Cultural resource management plans (CRMPs) would be developed for management of specific cultural properties and districts if needed (table 14).

TABLE 14

**Management of Cultural Resources**

<u>National Register Properties</u>	<u>Acres</u>
Alkali Ridge NHL <sup>a</sup> <sup>c</sup>	2,340
Hole-in-the-Rock Trail	6,110
Sand Island Petroglyph	b
Big Westwater Ruin	b
Butler Wash Archaeologic District	2,030
Grand Gulch Archaeologic District	4,240
Subtotal	14,720
<u>Potential National Register Eligible Cultural Properties</u>	<u>Acres</u>
Kachina Panel	b
Three Story Ruin	b
Ruin Spring	10
Subtotal	10
<u>Potential National Register Eligible Archaeologic Districts</u>	<u>Acres</u>
Cedar Mesa <sup>a</sup>	349,640
Fable Valley <sup>a</sup>	5,030
Tin Cup Mesa	2,610
Subtotal	357,280
TOTAL	372,010

<sup>a</sup>Area where a CRMP would be developed and implemented.

<sup>b</sup>Less than 1 acre. <sup>c</sup>National Historic Landmark.

**SPECIFIC MANAGEMENT PRESCRIPTIONS**

<u>National Register Nominations</u>	<u>Acres</u>
7 Nominations	357,290
3 cultural properties	10
3 archaeological districts	357,280
<u>CRMP Development and Implementation</u>	<u>Acres</u>
3 CRMPs	357,010
1 National Historic Landmark (NHL)	2,340
2 archaeological districts	354,670
<u>Special Designations</u>	<u>Acres</u>
4 ACECs	362,920
Alkali Ridge ACEC	35,890
Cedar Mesa ACEC	323,760
Hovenweep ACEC	1,500
Shay Canyon ACEC	1,770

**4332 WILDERNESS MANAGEMENT**

**MANAGEMENT OBJECTIVE**

- + To manage areas undergoing wilderness review under the interim management policy (IMP); and to manage designated wilderness areas to protect wilderness values.

**GENERAL MANAGEMENT GUIDANCE**

Wilderness study areas (WSAs) and instant study areas (ISAs) are shown in table 15. They would be managed under wilderness IMP until Congress either designates them as wilderness or drops them from wilderness review. Actions allowed under IMP would also be subject to restrictions developed in the RMP.

A plan amendment would be prepared if and when an area is designated as wilderness. Designated wilderness would be managed under regulations at 43 CFR 8560. A wilderness management plan would be prepared to provide site-specific management guidance for each designated wilderness area.

Areas not designated as wilderness will remain under study until released from wilderness review by Congress. When released, these areas would be managed under guidance for management of other resource programs given in the RMP.

**SPECIFIC MANAGEMENT PRESCRIPTIONS**

None developed.

TABLE 15  
Wilderness Review Areas

<u>Unit Number</u>	<u>Unit Name</u>	<u>Acreage</u>	<u>Contiguous Units</u>	<u>Acreage</u>
	Dark Canyon ISA <sup>a</sup>	62,040	Dark Canyon Wilderness, Manti-LaSal NF Dark Canyon proposed wilderness, Glen Canyon NRA Needles proposed wilderness, Canyonlands NP	45,000 18,100 61,182
	Grand Gulch ISA <sup>b</sup>	<sup>c</sup> 37,810	San Juan proposed wilderness, Glen Canyon NRA	13,010
UT-060-164	Indian Creek WSA	6,870	Maze proposed wilderness, Canyonlands NP	105,980
UT-060-167	Bridger Jack Mesa WSA	5,290		
UT-060-169	Butler Wash WSA	22,030	Needles proposed wilderness, Canyonlands NP	61,182
UT-060-169A	South Needles WSA	160	Needles proposed wilderness, Canyonlands NP	61,182
UT-060-171	Middle Point WSA <sup>a</sup>	5,990		
UT-060-181	Mancos Mesa WSA	51,440	Moki-Mancos proposed wilderness, Glen Canyon NRA	41,700
UT-060-188	Pine Canyon WSA <sup>b</sup>	10,890		
UT-060-191	Cheesebox Canyon WSA	15,410		
UT-060-196	Bullet Canyon WSA <sup>b</sup>	8,520		
UT-060-197/198	Slickhorn Canyon WSA <sup>b</sup>	45,390	San Juan proposed wilderness, Glen Canyon NRA	13,010
UT-060-201	Road Canyon WSA	52,420		
UT-060-204	Fish Creek WSA	46,440		

(Continued)

TABLE 15 (Concluded)

<u>Unit Number</u>	<u>Unit Name</u>	<u>Acreage</u>	<u>Contiguous Units</u>	<u>Acreage</u>
UT-060-205B	Mule Canyon WSA	5,990		
UT-060-224	Sheiks Flat WSA <sup>b</sup>	3,140		
UT-060-227	Squaw Canyon WSA	6,580	CO-030-265A, Squaw Canyon WSA, Montrose District, Colorado BLM <sup>d</sup>	4,611
UT-060-229	Cross Canyon WSA	1,000	CO-030-265, Cross Canyon WSA, Montrose District, Colorado BLM <sup>d</sup>	11,734

NOTE: Surveyed land is measured to the hundredth of an acre; unsurveyed land is estimated to the nearest acre.

<sup>a</sup>The Dark Canyon ISA combines with the Middle Point WSA to form the Dark Canyon Complex, with a total of 68,030 acres.

<sup>b</sup>The Grand Gulch ISA combines with the Pine Canyon, Bullet Canyon, Slickhorn Canyon, and Sheiks Flat WSAs to form the Grand Gulch Complex, with a total of 105,520 acres.

<sup>c</sup>The statewide wilderness EIS uses 37,580 acres for the Grand Gulch ISA. Acreage calculations for the San Juan RMP from the master title plats revealed the actual total to be 37,807, which is rounded to 37,810. The difference between the two figures amounts to 0.6 percent.

<sup>d</sup>Refer to BLM, 1984a and BLM, 1984b for suitability recommendations for Colorado BLM's Squaw Canyon and Cross Canyon WSAs.

Source: BLM Master Title Plats, December 1984.



## MANAGEMENT OBJECTIVE

- + To develop recreation sites; to designate SRMAs and manage so as to protect recreational opportunities in accordance with RMP goals; to manage public lands to preserve most ROS P-class areas and protect most ROS SPNM-class areas in accordance with RMP goals; to designate all of SJRA as open, closed, or limited for off-road vehicle (ORV) use, depending in part on ROS classes and on the need to protect other values in specific areas; and to recognize critical environmental values in specific areas.

## GENERAL MANAGEMENT GUIDANCE

Specific areas are managed as SRMAs in recognition of intensive recreational use or special recreational values. The remainder of SJRA is managed as San Juan Extensive Recreation Management Area (RMA). An SRMA serves as the basis for preparation of an activity plan; activity plans are not projected for the extensive RMA. Some SRMAs were designated prior to the RMP, and some are designated through the RMP (table 16). Additional SRMAs may be designated without a plan amendment in response to future use demands.

Dispersed recreation use would be allowed throughout SJRA, with permits required for commercial use. Permits are also required for private use in San Juan River SRMA. If demand increases, BLM may require permits for use in other areas where needed to protect resource values; this would not require a plan amendment. SJRA would continue to manage recreation use of San Juan River in conjunction with NPS under the memorandum of understanding existing prior to the RMP.

ORV use designations developed in the RMP would be made following completion of an ORV implementation plan and would become effective following publication of a Federal Register notice. The ORV designations do not distinguish between recreational and nonrecreational use; ORV use in an area designated closed or limited may be allowed under an authorized permit. ORV designations do not apply to federal, state, or county roads, or to private or state inholdings and can be changed only through a plan amendment.

## Recreation Management Areas

<u>Special Recreation Management Area</u>	<u>Acres</u>
Canyon Basins	<sup>a</sup> 214,390
Grand Gulch Plateau	385,000
Pearson Canyon	1,920
San Juan River	<u>15,100</u>
TOTAL	616,410
<u>Extensive Recreation Management Area</u>	
Remainder of SJRA	1,162,780
<u>Developed Recreation Sites</u>	
Arch Canyon Campsite	10
Butler Wash Ruin	60
Comb Wash Campsite	10
Indian Creek Campsite	20
Indian Creek Falls Campsite	10
Kane Gulch Ranger Station	40
Mexican Hat Launch Site	20
Mule Canyon Ruin	10
Pearson Canyon Hiking Trail and Campsite	20
Sand Island Campground	40
Three Kiva Pueblo	<u>10</u>
TOTAL	250

Source: BLM records.

ROS classes have been identified based on inventory work in SJRA. Classes are based on five setting factors. These factors are reviewed periodically; a change in conditions could result in a change in ROS class. RMP special conditions developed to preserve and protect P- and ROS SPNM-class areas reflect conditions present when the RMP was prepared and may be changed only through a plan amendment.

Portions of the San Juan River, the Colorado River, and the White Canyon drainage are listed as potential wild and scenic study segments

under the Wild and Scenic Rivers Act, as amended. BLM has examined these study segments (appendix DD) to determine their eligibility for inclusion in the wild and scenic river system and to determine their potential classification as wild, scenic, recreational, or a combination thereof.

Eligible segments will be studied to determine their suitability for designation as a wild and scenic river. All three segments in SJRA will require a joint study with another federal (NPS, USFS, or BIA). The joint study is tentatively scheduled to take place within 5 years after completion of the RMP. The study will be documented through a legislative EIS prepared by the lead agency for each river segment. The lead agency for the river segments in SJRA has not been determined. BLM will participate in joint suitability for wild and scenic designation with the following priorities: (1) the San Juan River, (2) the Colorado River, and (3) the White Canyon drainage.

Interim management of the river segments (appendix DD) will serve to protect the identified values until Congress acts. Site-specific NEPA documents prepared for any proposals for use of the study segments will take these values into account and provide mitigation for any potentially adverse impacts.

#### SPECIFIC MANAGEMENT PRESCRIPTIONS

<u>SRMA Management</u>	<u>Acres</u>
Manage to preserve ROS P-class and protect ROS SPNM-class area	616,410
Develop 4 SRMA management plans	616,410

NOTE: Recreational use of Dark Canyon and Grand Gulch Primitive Areas will be managed under guidelines in effect prior to the RMP until a revised activity plan is prepared.

San Juan Extensive RMA includes all area not in an SRMA 1,162,780

<u>Developed Recreation Sites</u>	<u>Acres</u>
Intensify management of 11 developed recreation sites to protect facilities; develop or improve 7 of these recreation sites	250

<u>ORV Use Designations</u>	<u>Acres</u>
Open to ORV use	611,310
Limited use with seasonal restrictions	540,260
Seasonal restrictions only	328,760
Seasonal restrictions with other limitations	211,500
To protect	
- bighorn sheep lambing and rutting areas	329,750
- antelope fawning area	12,960
- deer winter range	197,550

Limited to Existing Roads and Trails	265,730
To protect	
- floodplains, riparian/aquatic areas	6,000
To protect cultural, scenic, and recreational values:	
- Alkali Ridge ACEC	35,890
- Shay Canyon ACEC	1,770
- most SPNM-class areas	505,700
- road corridors adjacent to SPNM-class areas	12,300

Limited to Designated Roads and Trails	211,010
To protect cultural, scenic, and recreational values:	
- Cedar Mesa ACEC (partial)	208,970
- Hovenweep ACEC	1,500
- Pearson Canyon SRMA	1,920
- SPNM-class areas in SRMAs	49,590
- developed recreation sites	250

Closed to ORV Use	354,820
To protect vegetation study areas:	
- Bridger Jack Mesa	5,290
- Lavender Mesa	640
To protect cultural, scenic, and recreational values:	
- Butler Wash ACEC	13,870
- Cedar Mesa ACEC, partial	114,790
- Dark Canyon ACEC	62,040
- Indian Creek ACEC	13,100
- Scenic Highway Corridor ACEC	78,390

- P-class areas 196,040
- San Juan River SRMA SPM-class area 9,830
- RN-class area on Mancos Mesa 9,430

<u>Special Designations</u>	<u>Acres</u>
Dark Canyon ACEC	62,040

#### 4333 VISUAL RESOURCES MANAGEMENT

##### MANAGEMENT OBJECTIVE

- + To provide a systematic method to identify, evaluate, and manage visual resource values; to protect certain scenic values; and to minimize adverse visual impacts in other areas while allowing land-use activities to occur.

##### GENERAL MANAGEMENT GUIDANCE

Visual resource management (VRM) class areas have been identified based on inventory work in SJRA. Classes are based on visual resource conditions, such as scenic quality, distance zones, and sensitivity levels. These are reviewed periodically; a change in conditions could result in a change in VRM class. The RMP special conditions developed to protect visual resources through application of a specific VRM class may be changed only through a plan amendment.

VRM classes give management objectives to be applied to actions taking place on public lands. Land-use proposals are reviewed individually to determine whether visual impacts can be adequately mitigated to meet the objective of the existing VRM class.

##### SPECIFIC MANAGEMENT PRESCRIPTIONS

<u>Special Designations</u>	<u>Acres</u>
4 ACECs	407,740
Butler Wash ACEC	13,870
Cedar Mesa ACEC	323,760
Indian Creek ACEC	13,100
Scenic Highway Corridor ACEC	78,390

NOTE: Overlap is accounted for in total.

#### 4341 SOIL, WATER AND AIR MANAGEMENT

##### MANAGEMENT OBJECTIVE

- + To maintain or improve soil productivity, water quality, and air quality, and to improve watershed conditions, only so long as RMP goals are met.

##### GENERAL MANAGEMENT GUIDANCE

BLM would manage actions on the public lands to protect the soil resource. Additionally, BLM would manage the soil resource to maintain or increase soil productivity as needed. Public lands would be managed so as to abide by laws, executive orders, and regulations on floodplain and wetland areas to reduce resource loss from floods and erosion. BLM would determine the existence of prime and unique farmlands prior to approval of any actions.

BLM would maintain the soil data base by updating range site descriptions from information collected through range monitoring and other specific studies. Information is shared with Soil Conservation Service (SCS).

Watershed control structures in place prior to the RMP would be maintained. Additional structures may be constructed if needed, subject to conditions developed in the RMP.

BLM would maintain the water quantity data base. Water quality data have been entered on the USGS STORET computer program and would be maintained. BLM would maintain water rights files and data entry on the statewide computer system. USGS stream gauging stations would be accommodated. BLM would take appropriate actions to maintain water quality of streams within SJRA to meet state and federal water quality standards, including designated beneficial uses and antidegradation requirements.

BLM would manage actions on public lands to meet air quality standards prescribed by federal, state, and local laws. BLM would protect existing air quality when feasible. BLM has identified Dark Canyon ACEC and the Grand Gulch special emphasis area within Cedar Mesa ACEC as areas to be managed to protect pristine air quality conditions and other air-quality-related values (99,850 acres total).

## SPECIFIC MANAGEMENT PRESCRIPTIONS

<u>Watershed Control Structures</u>	<u>Acres</u>
Locate where needed	1,487,770
Standard conditions	482,510
Special conditions	1,005,260
Surface restrictions to protect:	
- Alkali Ridge ACEC	
- Cedar Mesa ACEC, partial	
- Hovenweep ACEC, partial	
- Shay Canyon ACEC	
- floodplains, riparian/aquatic areas	
- sensitive soils	
- most ROS SPNM-class area	
- existing land leases	
Seasonal restrictions to protect:	
- bighorn sheep lambing and rutting areas	
- antelope fawning area	
- deer winter range	
Excluded	291,420
To protect	
- Bridger Jack Mesa ACEC	
- Butler Wasn ACEC	
- Cedar Mesa ACEC, partial (Grand Gulch and Valley of the Gods special emphasis areas)	
- Dark Canyon ACEC	
- Hovenweep ACEC, partial	
- Indian Creek ACEC	
- Lavender Mesa ACEC	
- Scenic Highway Corridor ACEC	
- most ROS P-class areas	

Land Treatments (see 4322)

## 4342 HAZARDOUS WASTE MANAGEMENT

### MANAGEMENT OBJECTIVE

- + To identify sites that contain potentially hazardous materials; and to develop mitigation for those sites.

### GENERAL MANAGEMENT GUIDANCE

BLM would manage actions on public lands to (1) protect the health and safety of the public, federal-land users, and BLM employees; (2) comply with applicable federal and state laws, rules, orders, etc., within the context of BLM's

statutory mission as a federal natural resource manager; and (3) clean up past problems, control current problems, and avoid or minimize future problems of hazardous materials on public lands in a cost-effective manner. At this time (1987), BLM policy regarding hazardous materials management is still being formulated.

BLM would identify active and abandoned hazardous materials sites, if present, on a case-by-case basis. BLM would determine if further assessment of potential hazardous materials is needed.

## SPECIFIC MANAGEMENT PRESCRIPTIONS

None developed.

## 4351 HABITAT MANAGEMENT

### MANAGEMENT OBJECTIVE

- + To provide habitat for a diversity of wildlife species and to alter management of wildlife habitats so as to protect certain wildlife habitats and the upper Indian Creek and Cajon Pond riparian areas, only so long as RMP goals are met.

### GENERAL MANAGEMENT GUIDANCE

Wildlife habitats would be managed to provide forage, cover, water, and space requirements to support major wildlife species. Habitat management plans (HMPs) would be prepared and implemented to provide for site-specific wildlife habitat management. Additional HMPs may be identified and developed, if needed, without requiring a plan amendment. Wildlife water developments constructed prior to the RMP, which include 15 water sources developed for use by bighorn sheep, and 2 for antelope, would be maintained.

Management actions in floodplains and wetlands would preserve, protect, and, if necessary, restore natural functions in accordance with laws, executive orders, and regulations. Actions would be taken to minimize degradation of streambanks, loss of riparian vegetation, and degradation of aquatic habitats. Ecological site information from range monitoring would be used to establish riparian habitat potential and

monitor conditions. Activities in riparian zones, including mitigation of surface disturbance, would be designed to maintain riparian and aquatic habitat conditions. Bridges and culverts would allow adequate fish passage where applicable. Take-down panels or water gates would be installed on all fences that cross intermittent or perennial stream channels.

Big game species habitat would be managed in cooperation with Utah Division of Wildlife Resources (UDWR). Interagency big game studies would monitor habitat conditions.

The RMP special conditions developed to protect crucial habitat for big game species, the upper Indian Creek special emphasis area within Shay Canyon ACEC, and the Cajon Pond special emphasis area within Hovenweep ACEC reflect conditions present when the RMP was prepared, and may be changed only through a plan amendment.

#### **SPECIFIC MANAGEMENT PRESCRIPTIONS**

<u>Habitat Management Plans</u>	890,560
Plans prepared and implemented (3)	890,560
White Canyon-Red Canyon HMP	655,000
Hatch Point HMP	150,400
Beef Basin HMP	175,400

NOTE: HMP acreages are not additive because of overlap.

#### **4352 ENDANGERED SPECIES MANAGEMENT**

##### **MANAGEMENT OBJECTIVE**

- + To protect and conserve all officially listed and candidate plants and animals and their habitats, as provided by law, and to increase animal and plant populations where opportunities exist.

##### **GENERAL MANAGEMENT GUIDANCE**

No management action would be permitted on public lands that would jeopardize the continued existence of plant or animal species that are listed, are officially proposed for listing, or are candidates for listing as threatened or endangered. BLM would cooperate with U.S. Fish and Wildlife Service (USFWS) in writing recovery

plans for threatened or endangered species located within SJRA. Also, BLM would consult USFWS for a formal or informal consultation under Section 7 of the Endangered Species Act before approving or implementing any action that may affect a protected species. Sensitive species listed by the State would be managed in similar fashion, except that no Section 7 consultation is required. SJRA would continue to cooperate in surveys to determine the extent or existence of threatened, endangered, or sensitive species.

#### **SPECIFIC MANAGEMENT PRESCRIPTIONS**

None developed.

#### **4360 FIRE MANAGEMENT**

##### **MANAGEMENT OBJECTIVE**

- + To suppress wildfires where necessary to protect life, property, and high-risk resource values; to conduct conditional suppression where necessary to protect most ROS P- and SPNM-class areas and fire-dependent ecosystems or to limit motorized suppression in areas closed to ORV use; and to use prescribed fire to implement or maintain seedings where necessary.

##### **GENERAL MANAGEMENT GUIDANCE**

Fires would be suppressed in accordance with the fire management plan prepared to implement RMP decisions. The fire management plan would detail prescriptions for or limitations on fire suppression, including areas where fires would be completely suppressed or allowed to burn, equipment and techniques allowed in specified areas, and values at risk to be protected.

#### **SPECIFIC MANAGEMENT PRESCRIPTIONS**

<u>Suppression</u>	<u>Acres</u>
To protect	266,060
- High resource values	264,600
- Developed recreation sites	250
- Aquatic/riparian habitat in SPNM- and SPM-class areas	1,210

<u>Conditional Suppression</u>	<u>Acres</u>
To maintain	1,453,530
- Bridger Jack Mesa ACEC	5,290
- Butler Wash ACEC	13,870
- Cedar Mesa ACEC	323,760
- Dark Canyon ACEC	62,040
- Grand Gulch ACEC	49,130
- Hovenweep ACEC	2,000
- Indian Creek ACEC	13,100
- Lavender Mesa ACEC	640
- Scenic Highway Corridor ACEC	81,890
- ROS P-class areas	196,040
- Resource values (remainder of SJRA)	751,940

<u>Fire Use (Prescribed Fire)</u>	<u>Acres</u>
To maintain	59,600
- Prior seedings, where feasible	53,300
- New seedings, where feasible	6,300

NOTE: Acreages in parentheses may not be additive because of overlap.

## CHAPTER 3 - SPECIAL MANAGEMENT CONDITIONS

### OVERVIEW

This chapter describes the special management conditions that would apply to certain areas or resources within San Juan Resource Area (SJRA) under the San Juan Resource Management Plan (RMP). These special conditions are part of the resource management program decisions and must be viewed together with the management prescriptions given in chapter 2.

RMP special conditions are intended to mitigate broad-scale adverse impacts to specific resource values found to be at risk. They would be applied to any actions taken in the areas specified; however, these are not the only conditions that might apply to a project.

Four levels of mitigation could apply to any action taken in SJRA: (1) mitigation required by law, executive order, or regulations; (2) the RMP special conditions presented here; (3) project stipulations either submitted as part of a proposed action or developed through site-specific National Environmental Policy Act (NEPA) documentation; and (4) standard operating conditions.

Mitigating measures mandated by law, executive order, or regulation are not listed here, but would apply to any project. RMP special conditions would not apply if they would limit valid legal rights to use public lands (for example, under certain aspects of the mining laws). RMP decisions also do not apply where they would limit valid existing rights (rights that were in effect when the RMP was adopted, such as prior mineral leases).

Some types of land uses, such as geophysical operations, do not require a Bureau of Land Management (BLM) decision or authorization; in

these cases, project stipulations or special conditions would not be applied unless needed to mitigate unnecessary or undue degradation of public lands or resources. Projects that would result in unnecessary and undue degradation would be denied unless the operator could mitigate or lessen the degree of change to an acceptable level.

Except as noted above, the RMP special conditions would be applied to any projects proposed for the specific area identified, to protect the resource values at risk. If a project could not meet the special conditions, either it would have to be modified or denied or the RMP would have to be amended. However, the Area Manager may approve exceptions to application of the special conditions on a case-by-case basis if sufficient justification exists to show that this level of mitigation is not needed (such as waiving a seasonal use requirement if a protected wildlife species is not using crucial habitat in a specific year).

Site-specific NEPA documentation, prepared at the time a project is evaluated for approval, would be used to provide site-specific analysis of the project's environmental effects and to determine site-specific mitigation requirements. If adverse impacts from a proposed action could not be mitigated, the project would be denied or modified to bring the degree of change to an acceptable level.

Standard operating procedures generally would apply to any project, but could be modified or waived by the Area Manager on a case-by-case basis. These are not listed here. They include such things as standard road specifications, fencing specifications, trash control methods,

landscaping specifications, and requirements for cultural resource clearances.

The RMP special conditions have been developed through the RMP/EIS and are part of the decisions, terms, and conditions for use of public lands and resources within SJRA. They cannot be changed without a plan amendment.

The special conditions are listed using the names given in chapter 2. RMP special conditions for areas of critical environmental concern (ACECs) are listed first, in alphabetical order. The special conditions for other areas and resource values are listed after those for the ACECs.

#### SPECIAL CONDITIONS FOR ACECS

##### **ALKALI RIDGE ACEC**

Alkali Ridge ACEC (35,890 acres), which covers the area between Alkali Canyon and Montezuma Canyon, contains Alkali Ridge National Historic Landmark (NHL) (2,340 acres). It would be managed under program 4331, Cultural Resources Management, for the cultural resource objectives of informational potential and public values. The following special conditions are intended to protect cultural resources and would apply to actions within Alkali Ridge ACEC. Where riparian areas overlap Alkali Ridge ACEC, the special conditions for floodplains and riparian/aquatic areas take precedence.

Surface disturbance would be limited to provide maximum opportunity for achieving the cultural resource objectives. Both direct and indirect damage to cultural resources would be avoided. Within Alkali Ridge NHL, cultural properties listed, or eligible for listing, on the National Register would be avoided by a minimum of 200 feet. In the remainder of the ACEC, they would be avoided by a minimum of 100 feet. Where cultural properties cannot be avoided by the minimum amount because of site densities or topographic considerations, additional data recovery from the site would be required. Documentation would have to meet the requirements of the Secretary's "Standards and Guidelines for Archaeology and Historic Preservation: A Handbook." The supplementary data

recovery could range from sample collection of diagnostic artifacts to complete excavation. The activity plan prepared for Alkali Ridge ACEC would also guide any necessary excavation work.

Any surface disturbance must be successfully revegetated within 5 years.

Alkali Ridge ACEC would be:

- open for minerals leasing and geophysical work;
- available for disposal of mineral materials;
- open to mineral entry with an approved plan of operations;
- retained in public ownership and not classified, segregated, or withdrawn from entry;
- available for private and commercial use of woodland products;
- available for livestock use;
- available for land treatments or other range improvements;
- available for wildlife habitat improvements;
- subject to conditional fire suppression;
- designated as limited to off-road vehicle (ORV) use, with use limited to existing roads and trails; and
- managed as visual resource management (VRM) class I.

##### **BRIDGER JACK MESA ACEC**

Bridger Jack Mesa ACEC (5,290 acres), which covers the top of Bridger Jack Mesa, falls within the Canyon Basins Special Recreation Management Area (SRMA). The ACEC would be managed under program 4322, Grazing Management, to provide a baseline for rangeland studies through research and experiments and to allow for primitive recreation. It would be used for comparative studies of ecological sites to study the recovery of near-relict plant communities



from the effects of grazing. The following special conditions are intended to protect vegetation resources and would apply to actions within Bridger Jack Mesa ACEC. The ACEC would be in the semiprimitive nonmotorized (SPNM) recreation opportunity spectrum (ROS) class. The following special conditions, which take precedence, are in addition to the ROS special conditions.

Surface disturbance would be limited to that which can be revegetated (with native species naturally occurring on the mesa top) to visually match initial conditions within 5 years.

Bridger Jack Mesa ACEC would be:

- open for minerals leasing with stipulations to prevent surface occupancy of the mesa top;
- available for geophysical work;
- closed to disposal of mineral materials;
- open to mineral entry with an approved plan of operations, subject to stipulations precluding surface use of the mesa top insofar as possible;
- retained in public ownership and not classified, segregated, or withdrawn from entry;
- excluded from special purpose leases or permits, other than minerals leases;
- excluded from private or commercial use of woodland products, except for limited onsite collection of dead wood for campfires;
- excluded from livestock use, including grazing by pack animals used for access;
- excluded from land treatments or other livestock improvements, except for test plots and facilities necessary for study of the near-relict plant communities;
- excluded from wildlife habitat improvements;
- excluded from watershed control structures;
- subject to conditional fire suppression;

- designated as closed to ORV use;
- excluded from surface occupancy or disturbance by mechanized or motorized equipment, except helicopter access for scientific study;
- managed as VRM class I; and
- managed to limit recreation use if vegetation resources are being damaged.

#### BUTLER WASH ACEC

Butler Wash ACEC (13,870 acres), which covers an area adjacent to Canyonlands National Park (NP) Needles District, falls within Canyon Basins SRMA. The ACEC would be managed under program 4333, Recreation/Visual Resources Management, to protect scenic values. The following special conditions are intended to protect visual resources and would apply to actions within Butler Wash ACEC. Almost all of the ACEC would be in the primitive (P) or SPNM ROS class. The ACEC would be managed under the special conditions developed for ROS class P. The following special conditions, which take precedence, are in addition to other special conditions.

Surface use would be limited to protect scenic values. Surface disturbance would be limited to that which can be successfully reclaimed within 1 year to visually match initial conditions. All revegetation must be with native species naturally occurring in the vicinity.

Butler Wash ACEC would be:

- closed to minerals leasing;
- available for geophysical work;
- closed to disposal of mineral materials;
- retained in public ownership and classified as segregated from entry (a Secretarial withdrawal would be requested);
- excluded from private and commercial use of woodland products, except for limited onsite collection of dead wood for campfires;

- available for livestock use;
- excluded from construction of range improvements or land treatments;
- available for wildlife habitat improvements;
- designated as closed to ORV use;
- managed to limit recreation use if scenic values are being damaged; and
- managed as VRM class I, with only those projects that meet class I objectives allowed.

#### CEDAR MESA ACEC

Cedar Mesa ACEC (323,760 acres), which covers the area between Grand Gulch and Comb Wash, contains Grand Gulch Archaeologic District and Grand Gulch Primitive Area and falls within Grand Gulch Plateau SRMA. It includes two special emphasis areas: Grand Gulch (49,130 acres) and Valley of the Gods (36,800 acres). Scenic Highway Corridor ACEC (designated under program 4333) overlaps 21,380 acres; in this area, the special conditions developed for Scenic Highway Corridor ACEC take precedence. Where riparian areas overlap Cedar Mesa ACEC, the special conditions for floodplains and riparian/aquatic areas take precedence. The ACEC contains both ROS classes P and SPNM. The following special conditions, which take precedence, are in addition to the ROS special conditions.

The ACEC would be designated jointly under programs 4331, Cultural Resources Management and 4333, Recreation/Visual Resources Management. It would be managed to protect cultural resources, scenic values, and natural values associated with primitive recreation. Cultural resources would be managed for the objectives of informational potential, public values, and conservation.

Activities within the ACEC would be approved only with special conditions to protect cultural and visual resources and primitive recreation opportunities. Areas identified as ROS class P would be managed to maintain that class. Sur-

face disturbance would be limited to provide maximum opportunity for achieving the cultural resource objectives and to avoid both direct and indirect damage to cultural resources. Cultural properties listed, or eligible for listing, on the National Register would be avoided by a minimum of 150 feet. Where damage cannot be avoided, impacts would be mitigated through limited or complete excavation. Any surface disturbance must be successfully revegetated within 5 years.

The Grand Gulch special emphasis area and ROS P-class areas within the ACEC would be managed to provide primitive recreation opportunities. The Valley of the Gods special emphasis area would be managed to protect scenic values. The Grand Gulch and Valley of the Gods special emphasis areas and the ROS P-class areas within the ACEC would be protected from surface disturbance to the maximum extent possible. Surface disturbance would be limited to that which can be successfully reclaimed within 1 year to visually match initial conditions. All revegetation must be with native species naturally occurring in the vicinity.

Cedar Mesa ACEC would be:

- open for minerals leasing and geophysical work;
- available for disposal of mineral materials;
- retained in public ownership and not classified, segregated, or withdrawn from mineral entry;
- available for private and commercial use of woodland products in designated areas, except that limited onsite collection of dead fuelwood for campfires would be allowed throughout the area;
- available for livestock use;
- available for land treatments or other range improvements;
- available for wildlife habitat improvements;
- subject to conditional fire suppression; and

- designated as limited to ORV use, with use limited to designated roads and trails.

In addition to the special conditions above, the Grand Gulch and Valley of the Gods special emphasis areas and the ROS P-class areas within the ACEC would be:

- open for minerals leasing with stipulations to prevent surface occupancy;
- available for geophysical work;
- closed to disposal of mineral materials;
- retained in public ownership and classified as segregated from entry (a Secretarial withdrawal would be requested);
- excluded from private and commercial use of woodland products, except for limited onsite collection of dead wood for campfires;
- managed as VRM class I, with only projects that meet class-I objectives allowed;
- available for livestock use, except for a portion of Grand Gulch (the bottom of the gulch, below Kane Gulch to the confluence with the San Juan River, 11,200 acres);
- excluded from construction of range projects or land treatments;
- designated as closed to ORV use;
- excluded from surface occupancy or disturbance by mechanized or motorized equipment; and
- managed to limit recreation use if cultural resources or scenic values are being damaged.

#### DARK CANYON ACEC

Dark Canyon ACEC (62,040 acres), which covers Dark Canyon Primitive Area, falls within Canyon Basins SRMA. The ACEC would be designated under program 4333, Recreation/Visual Resources Management and managed to protect natural values associated with primitive recreation. The ACEC would be in ROS class P or SPM and would be

managed under the special conditions developed for ROS P-class areas. Dark Canyon ACEC would be also subject to seasonal use conditions to protect crucial bighorn sheep habitat. The following special conditions, which take precedence, are in addition to other special conditions.

Activities within the ACEC would be approved only with special conditions to protect primitive recreation opportunities. Areas within ROS class P would be managed to maintain that class. Surface disturbance would be limited to that which can be successfully reclaimed within 1 year to visually match initial conditions. All revegetation must be with native species naturally occurring in the vicinity.

Dark Canyon ACEC would be:

- open for minerals leasing with stipulations to prevent surface occupancy;
- available for geophysical work;
- closed to disposal of mineral materials;
- retained in public ownership and classified as segregated from entry (a Secretarial withdrawal would be requested);
- excluded from private and commercial use of woodland products, except for limited onsite collection of dead wood for campfires;
- excluded from livestock use;
- excluded from construction of range projects or land treatments;
- excluded from wildlife habitat improvements;
- designated as closed to ORV use;
- managed as VRM class I; and
- managed to limit recreation use if cultural resources or scenic values are being damaged.

## HOVENWEEP ACEC

Hovenweep ACEC (1,500 acres), corresponds to the area identified by NPS in Cooperative Management Strategies for Hovenweep NM [BLM and NPS, 1987]. The ACEC would be designated jointly under program 4331, Cultural Resources Management and 4351, Habitat Management and would be managed to protect cultural resources and wildlife values. Cultural resources would be managed for the objectives of informational potential and public values. The ACEC includes two special emphasis areas: Cajon Pond (10 acres) and a visual protection zone (880 acres). Where riparian areas overlap Hovenweep ACEC, the special conditions for floodplains and riparian/aquatic areas take precedence.

Activities within Hovenweep ACEC would be approved only with special conditions to protect cultural resources and wildlife values. Surface disturbance would be limited to provide maximum opportunity for achieving the cultural resource objectives and to avoid both direct and indirect impacts to cultural resources. Cultural properties listed, or eligible for listing, on the National Register would be avoided by a minimum of 100 feet. Where damage cannot be avoided, impacts would be mitigated through limited or complete excavation. Any surface disturbance must be successfully revegetated within 5 years.

The visual protection zone special emphasis area (880 acres) corresponds with the area leased with no-surface-occupancy stipulations prior to adoption of the RMP. The Cajon Pond special emphasis area (10 acres) contains Cajon Pond, which provides important riparian habitat for waterfowl. It would be managed to protect wildlife habitat. In addition, the following special conditions would apply.

Hovenweep ACEC would be:

- open for minerals leasing and geophysical work;
- closed to disposal of mineral materials;
- open to mineral entry with an approved plan of operations;

- retained in public ownership and not classified, segregated, or withdrawn from entry;
- excluded from private and commercial use of woodland products, except for limited onsite collection of dead wood for campfires;
- available for livestock use;
- available for land treatments or other range improvements;
- available for wildlife habitat improvements;
- designated as limited to ORV use, with use limited to designated roads and trails; and
- subject to conditional fire suppression.

In addition to the special conditions above, the visual protection zone special emphasis area would be:

- open for minerals leasing with stipulations to prevent surface occupancy; and
- excluded from grazing improvements or land treatments.

In addition to the special conditions above, the Cajon Pond special emphasis area would be:

- open for minerals leasing and other surface uses with stipulations to prevent surface occupancy or surface disturbance during the shorebird and waterfowl courtship and nesting season (March 1 through June 30 annually); and
- excluded from livestock use within the fenced portion (about 1 acre).

## INDIAN CREEK ACEC

Indian Creek ACEC (13,100 acres), which covers an area adjacent to Canyonlands NP, falls within Canyon Basins SRMA. It would be managed under program 4333, Recreation/Visual Resources Management, to protect scenic values. The following special conditions are intended to protect visual resources and would apply to actions within Indian Creek ACEC. Almost all of the

ACEC would be in ROS class P or SPNM; it would be managed under the special conditions developed for ROS P-class areas. The following special conditions, which take precedence, are in addition to other special conditions.

Surface use would be limited to protect scenic values. Surface disturbance would be limited to that which can be successfully reclaimed within 1 year to visually match initial conditions. All revegetation must be with native species naturally occurring in the vicinity.

Indian Creek ACEC would be:

- closed to minerals leasing;
- available for geophysical work;
- closed to disposal of mineral materials;
- retained in public ownership and classified as segregated from entry (a Secretarial withdrawal would be requested);
- excluded from private and commercial use of woodland products, except for limited onsite collection of dead wood for campfires;
- available for livestock use;
- excluded from construction of range improvements or land treatments;
- available for wildlife habitat improvements;
- designated as closed to ORV use;
- managed to limit recreation use if scenic values are being damaged; and
- managed as VRM class I, with only those projects that meet class-I objectives allowed.

#### LAVENDER MESA ACEC

Lavender Mesa ACEC (640 acres), which covers the top of Lavender Mesa, falls within Canyon Basins SRMA. The ACEC would be managed under program 4322, Grazing Management, to provide a baseline for rangeland studies through research and

experiments and to allow for primitive recreation. It would be used for comparative studies of ecological sites to study relict (never-grazed) plant communities. The following special conditions are intended to protect vegetation resources and would apply to actions within Lavender Mesa ACEC. The ACEC would be in ROS class SPNM. The following special conditions, which take precedence, are in addition to the ROS special conditions.

Surface disturbance would be limited to that which can be revegetated (with native species naturally occurring on the mesa top) to visually match initial conditions within 5 years.

Lavender Mesa ACEC would be:

- open for minerals leasing with stipulations to prevent surface occupancy of the mesa top;
- available for geophysical work;
- closed to disposal of mineral materials;
- open to mineral entry with an approved plan of operations, subject to stipulations precluding surface use of the mesa top insofar as possible;
- retained in public ownership and not classified, segregated, or withdrawn from entry;
- excluded from special purpose leases or permits, other than minerals leases;
- excluded from private or commercial use of woodland products, except for limited onsite collection of dead wood for campfires;
- excluded from livestock use, including grazing by pack animals used for access;
- excluded from land treatments or other livestock improvements, except for test plots and facilities necessary for study of relict plant communities;
- excluded from wildlife habitat improvements;
- excluded from watershed control structures;

- subject to conditional fire suppression;
- designated as closed to ORV use;
- excluded from surface occupancy or disturbance by mechanized or motorized equipment, except helicopter access for scientific study;
- managed as VRM class I; and
- managed to limit recreation use if cultural resources or scenic values are being damaged.

#### SCENIC HIGHWAY CORRIDOR ACEC

Scenic Highway Corridor ACEC (78,390 acres) covers a mile-wide strip along state highways U-95, U-261, and U-276 (formerly U-263), and part of the White Canyon watershed. This ACEC contains part of Butler Wash Archaeologic District (2,030 acres total) and crosses Cedar Mesa ACEC and Grand Gulch Plateau SRMA. Cedar Mesa ACEC overlaps 21,380 acres. Scenic Highway Corridor ACEC would be designated under program 4333, Recreation/Visual Resources Management and managed to protect scenic values. Although none of the ACEC would be in ROS class P or SPM, the ACEC would be managed under the special conditions developed for ROS P-class areas. The following special conditions, which take precedence, are in addition to other special conditions.

Activities within the ACEC would be approved only with special conditions to protect scenic values. Any surface disturbance must be successfully revegetated (with native species naturally occurring in the vicinity) to visually match initial conditions within 1 year.

Scenic Highway Corridor ACEC would be:

- closed to minerals leasing;
- available for geophysical work;
- closed to disposal of mineral materials;
- retained in public ownership and classified as segregated from entry (a Secretarial withdrawal would be requested);
- excluded from private or commercial use of woodland products, except for limited onsite collection of dead wood for campfires;
- available for livestock use;
- excluded from construction of range improvements or land treatments;
- available for wildlife habitat improvements;
- designated as closed to ORV use;
- managed to limit recreation use if scenic values are being damaged; and
- managed as VRM class I, with only those projects that meet class-I objectives allowed.

#### SHAY CANYON ACEC

Shay Canyon ACEC (1,770 acres), which includes two branches of Indian Creek, would be managed under program 4331, Cultural Resources Management, for the cultural resource objectives of conservation and public values. The following special conditions are intended to protect cultural resources and aquatic habitat and would apply to actions within Shay Canyon ACEC. Shay Canyon ACEC contains a special emphasis area along Indian Creek (200 acres). Where riparian areas overlap part of Shay Canyon ACEC, the special conditions for floodplains and riparian/aquatic areas take precedence.

Surface disturbance would be limited to provide the maximum opportunity for achieving the cultural resource objectives. Both direct and indirect damage to cultural resources would be avoided. Cultural properties listed, or eligible for listing, on the National Register would be avoided by a minimum of 100 feet. Where damage cannot be avoided, impacts would be mitigated through limited or complete excavation. Any surface disturbance must be successfully revegetated within 5 years.

Within the upper Indian Creek special emphasis area (200 acres), management to protect riparian and aquatic habitat would be emphasized. The special emphasis area would be a 200-foot-wide corridor centered on Indian Creek.

Snay Canyon ACEC would be:

- open for minerals leasing and geophysical work;
- available for disposal of mineral materials;
- open to mineral entry with an approved plan of operations;
- retained in public ownership and not classified, segregated, or withdrawn from entry;
- excluded from private or commercial use of woodland products, except for limited onsite collection of dead wood for campfires;
- available for livestock use;
- excluded from construction of range improvements or land treatments;
- available for wildlife habitat improvements;
- designated as limited to ORV use, with use limited to existing roads and trails;
- managed as VRM class I; and
- subject to conditional fire suppression.

In addition to the special conditions above, the upper Indian Creek special emphasis area would be:

- managed to protect riparian and aquatic habitats from degradation and to protect and increase the extent of fishery habitat.

#### SPECIAL CONDITIONS FOR AREAS OTHER THAN ACECs

##### **FLOODPLAINS AND RIPARIAN/AQUATIC AREAS**

All floodplains and riparian/aquatic areas are managed in accordance with Executive Orders 11988 and 11990 and the Endangered Species Act. The acreage (6,000 acres) was estimated using a 100-foot corridor. These special conditions apply to riparian areas wherever they occur, but not to nonriparian areas within the estimated corridor. Some of these areas are covered by other special conditions; the following special

conditions are in addition to any others that may apply.

Floodplains and riparian/aquatic areas would be:

- open for minerals leasing with stipulations to prevent surface occupancy within actual floodplains or riparian/aquatic areas;
- subject to fire suppression to protect aquatic habitat in ROS SPNM- and SPM-class areas and to conditional suppression elsewhere;
- designated as limited to ORV use, with use limited to existing roads and trails; and
- excluded from surface occupancy or disturbance by mechanized or motorized equipment and from structural development (except fences) within actual floodplains or riparian/aquatic areas.

##### **SENSITIVE SOILS AREAS**

As estimated 195,000 acres in SJRA contain areas with sensitive soils; approximately 23 percent (45,000 acres) of the soils within these areas are actually classified as sensitive. Sensitive soils are badland and gypsumland soils on sloping to steep terrain. They are subject to erosion and difficult to revegetate. Not all soils within these areas are sensitive; these special conditions do not apply to soils that are not sensitive. If there is any question as to whether soils within a given project area are or are not sensitive, the operator should consult BLM. Some of these areas are covered by other special conditions; the following special conditions are in addition to any others that may apply.

Construction and development would be avoided where possible in areas with slopes in excess of 10 percent and soils high in clay, salt, or gypsum content. Operations would be located so as to reduce erosion and improve the opportunity for revegetation within areas of sensitive soils.

Prior to commencement of surface-disturbing activities, the operator would visit the area with the BLM surface protection specialist, who

would identify areas of sensitive soils for the operator.

Grading operations would be allowed only when soils are dry. Cross-country travel or construction activity would be allowed only when soils are dry or frozen or have snow cover.

New roads would be constructed so as to avoid areas of sensitive soils where possible. In sensitive soils areas where roads must be allowed, new roads would be constructed with water bars and graded to spread drainage, instead of channeling runoff. No road grades in excess of 15 percent would be allowed; no surface disturbance from vehicle chains or leads would be allowed on slopes greater than 15 percent. No vehicle access would be allowed across slopes in excess of 25 percent.

Reclamation on sites with sensitive soils would require grading using slopes of 5 percent or less where possible, and grading the site so as to collect water for revegetation onsite.

Revegetation would be with adapted native species and prostrate *Kochia*, where allowed by vegetation special conditions.

#### **SENSITIVE SLOPES**

This special condition applies only to broad-scale land treatments (vegetation manipulations) because of the large area involved, where ground slope is greater than 10 percent. In areas within ROS class P or SPM, the ROS special conditions would take precedence.

Vegetation manipulation techniques on slopes greater than 10 percent would be limited to chemical treatments and broadcast seedings; chainings, railings, or other surface-disturbing methods would not be allowed.

#### **SEASONAL WILDLIFE PROTECTION AREAS**

Crucial big game habitats are subject to special conditions regulating use during certain seasons. These special conditions apply in addition to any other stipulations or conditions in effect for crucial habitat areas.

The Area Manager may grant exceptions on a case-by-case basis during any year if it can be shown that (1) legal rights would be curtailed; (2) the animals are not present in a specific project location; or (3) the activity can be conducted so as not to adversely affect the animals.

#### **Bighorn Sheep Lambing and Rutting Areas**

Part of the 329,750-acre bighorn crucial habitat area falls in ROS class P and SPM. The following special conditions are in addition to the ROS special conditions, which take precedence.

Use of crucial bighorn sheep habitat would be limited during the lambing season (April 1 to July 15 annually) and the rutting (mating) season (October 15 to December 31 annually). During these periods, no activities may take place which require a continued human presence (over 12 hours) within the area; involve sudden loud noises (such as detonation of a surface charge) or sustained noise (such as a chain saw or diesel generator); or require the use of low-flying aircraft.

#### **Antelope Fawning Area**

The antelope crucial habitat area would not be subject to the ROS special conditions.

Use within the 12,960-acre crucial antelope habitat would be limited during the fawning season (May 15 to June 30 annually). During this period no activities may take place which require a continued human presence (over 12 hours) within the area; involve sudden loud noises (such as detonation of a surface charge) or sustained noise (such as a chain saw or diesel generator); or require the use of low-flying aircraft.

#### **Deer Winter Range**

Part of the deer crucial winter range areas fall in ROS class SPM. The following special conditions are in addition to the ROS special conditions, which take precedence.

Use within the 197,550-acre crucial deer winter habitat areas would be limited during periods of



critical winter use (December 15 to April 30 annually). During this period no surface-disturbing activities that would remove deer forage and browse plants may take place in these areas. During this period no activities may take place which require a continued human presence (over 12 hours) within the area; involve sudden noises (such as detonation of a surface charge) or sustained noise (such as a chain saw or diesel generator); or require the use of low-flying aircraft.

Hunting during a recognized hunting season established by UDWR would not be affected by these special conditions.

Certain sagebrush parks within crucial deer winter range areas (9,800 acres) have been identified as providing a concentrated food source for wintering deer. Large-scale removal could cause a significant loss of winter forage. The areas fall within various ROS classes; the following special conditions are in addition and take precedence.

No land treatments would be allowed.

#### **IDENTIFIED MESA TOPS, BIGHORN SHEEP**

Five mesa tops (56,740 acres) within the crucial bighorn sheep habitat have been identified as areas of potential conflict between bighorn and activities that cause surface disturbance resulting in removal of critical forage species.

Parts of the identified mesa tops fall in ROS class SPNM; the following special conditions are in addition to the ROS special conditions, which take precedence.

Onsite mitigation would be required for projects that disturb or remove forage and browse species used by desert bighorn sheep; the purpose of the mitigation would be to replace the food lost.

In addition to standard reclamation practices, revegetation of disturbed areas must be accomplished using native plant species palatable to bighorn and must be successful within 5 years.

Grazing uses would not be allowed. This includes range development projects and land treatments.

#### **NATIONAL REGISTER CULTURAL PROPERTIES AND ARCHAEOLOGIC DISTRICTS**

This special condition applies to any site listed, or eligible for listing, on the National Register (372,010 acres). It applies to both cultural properties and archaeologic districts, whether or not they were identified at the time the RMP was adopted. For these areas, the following special condition would be in addition to any others that may apply.

Both direct and indirect damage to National Register cultural properties and archaeologic districts and eligible properties and districts would be avoided to the extent possible without curtailing valid rights. Cultural properties listed, or eligible for listing, on the National Register would be avoided by a minimum of 100 feet. If avoidance is not possible, impacts would be mitigated through limited or complete excavation.

#### **RECREATION OPPORTUNITY SPECTRUM CLASS AREAS**

These special conditions are necessary to ensure that specific areas are managed to maintain or protect certain ROS classes. These special conditions are intended to maintain P-class areas and to protect SPNM-class areas identified in SJRA at the time the RMP was adopted, except those at Squaw and Cross Canyons near the Colorado state line. Special conditions are also developed to maintain the SPM-class areas in the San Juan River SRMA and to protect primitive recreation opportunities on Mancos Mesa.

##### **Primitive (P) Class**

ROS P-class areas (196,040 acres) would be managed to be essentially free of evidence of human use and to maintain an environment of isolation (not more than 10 group encounters per day). Levels of management and use are aimed at maintaining natural ecosystems. These special conditions apply to all P-class areas except those at Squaw and Cross Canyons near the Colorado state line.

Activities within ROS P-class areas would be approved only with special conditions to protect the primitive recreation opportunities and would

be managed to maintain that class. Surface disturbance would be limited to that which can be successfully reclaimed within 1 year to visually match initial conditions. All revegetation must be with native species naturally occurring in the vicinity.

ROS P-class areas would be:

- open for minerals leasing with stipulations to prevent surface occupancy;
- available for geophysical work;
- closed to disposal of mineral materials;
- retained in public ownership;
- excluded from private and commercial use of woodland products, except for limited onsite collection of dead wood for campfires;
- available for livestock use at past 5 years average licensed use (1979-1984);
- excluded from new land treatments;
- subject to conditional fire suppression, with motorized suppression methods used only if necessary to protect life or property;
- managed to allow cultural resources to remain subject to natural forces;
- designated as closed to ORV use;
- excluded from surface occupancy or disturbance by mechanized or motorized equipment;
- managed as VRM class I, with only those projects that meet class-I objectives allowed; and
- managed to limit recreation use to maintain primitive recreation opportunities.

#### Semiprimitive Nonmotorized (SPNM) Class

ROS SPNM-class area (505,700 acres) would be managed to provide a predominantly natural environment with limited evidence of human use and restrictions and, where possible, to provide

an environment of isolation (not more than 20 group encounters per day). Reclamation of surface-disturbing activities would be required to achieve a natural appearance within 5 years after project completion. Levels of management and use are aimed at protecting natural ecosystems where feasible. These special conditions apply to all SPNM-class areas, except those at Squaw and Cross Canyons near the Colorado state line.

Activities within ROS SPNM-class areas would be approved only with special conditions to protect the primitive recreation opportunities. Surface disturbance would be limited to that which can be successfully reclaimed to achieve a natural appearance within 5 years after project completion. New access routes would be completely rehabilitated after project completion; however, certain routes may be left for continued access at the request of BLM.

In areas where ROS SPNM class is cut by mile-wide SPM- or RN-class corridors (along established roads), the special conditions for SPNM areas would be applied with the following exceptions: surface disturbance would be reclaimed to standard conditions, and new access roads would be rehabilitated to standard conditions.

ROS SPNM-class areas would be:

- open for minerals leasing with conditions to require reclamation to achieve a natural appearance within 5 years after project completion;
- available for geophysical work;
- available for disposal of mineral materials;
- retained in public ownership;
- excluded from private and commercial use of woodland products, except for limited onsite collection of dead wood for campfires;
- available for livestock use at past 5 years average licensed use (1979-1984);
- available for construction of range improvements and new land treatments, so long as

they are made to blend with the natural character of the land;

- subject to conditional fire suppression, with motorized suppression methods used only if necessary to protect life or property, except fires in riparian areas would be suppressed;
- managed to allow cultural resources management activities that blend with the natural character of the land;
- designated as limited to ORV use, with use limited to designated roads and trails in SRMAs and to existing roads and trails elsewhere; and
- managed to allow construction of development projects that blend with the natural character of the land.

#### Roaded Natural (RN) Class on Mancos Mesa

The RN-class area on Mancos Mesa (9,430 acres) would be closed to ORV use to protect the adjacent P-class areas. In an area closed to ORV use, a plan of operations is required for any mining-related activity other than casual use.

#### Semiprimitive Motorized (SPM) Class within San Juan River SRMA

The SPM-class area within San Juan River SRMA (9,380 acres) would be managed under the special conditions given above for P-class areas, except that motorized boat use on San Juan River would be allowed. This area would be managed to maintain an environment of isolation insofar as allowed by the river permit and patrol system. Levels of management and use are aimed at maintaining safety and the riverine ecosystem.

The following special conditions are in addition to, and take precedence over, those for P-class areas.

The area would be segregated from mineral entry, and surface disturbance from mining activities on existing claims would be limited to the extent possible without curtailing valid existing rights. In an area closed to ORV use, a

plan of operations is required for any mining-related activity other than casual use.

Except for motorized boat use on the San Juan River, no vehicle access would be allowed.

#### PEARSON CANYON SPECIAL RECREATION MANAGEMENT AREA

Pearson Canyon SRMA (1,920 acres) would be managed for intensive recreation use.

The SRMA would be segregated from mineral entry.

No surface disturbance from minerals prospecting, exploration, or development would be allowed, to the extent possible without curtailing valid rights. No other type of surface use, motorized access, or development would be allowed. Vehicle access would be allowed only on designated roads and trails.

Livestock grazing would be excluded (the SRMA is not now grazed), and range improvements, including land treatments, would not be allowed.

Recreation use restrictions would be imposed if natural values are being damaged.

The SRMA would be subject to conditional fire suppression.

#### DEVELOPED RECREATION SITES

The special conditions for 250 acres of developed recreation sites would apply at the time development of the site commences, except that mineral-lease category stipulations apply upon adoption of the RMP. The special conditions are those necessary to protect the Federal Government's investment in capital improvements and facilities.

Developed recreation sites would be segregated from mineral entry. They would not be used for minerals exploration, development, or production, or for grazing purposes, range improvements, or watering of livestock.

No private or commercial harvest of woodland products would be allowed, except limited onsite collection of dead fuelwood for campfires.

Vehicle use would be allowed only on designated roads and trails.

The areas would be subject to fire suppression.

#### **EXISTING LAND LEASES**

Existing special land-use leases carry conditions to ensure that the public lands remain suitable for the purpose for which the lease was issued. Special conditions would be applied to other land-use activities consistent with these prior lease rights. Existing rights-of-way would remain in effect with stipulations in place when issued.

The following special conditions would be applied to protect existing special land-use leases.

##### **Bluff Airport Lease**

Uses of the 400 acres now covered by the Bluff Airport lease would be allowed only when consistent with the use of the leased land for airport purposes. The land could be used for extraction or production of natural resources, including grazing, only with consent of the airport. The

party wishing to use the land must file with the FAA and would be bound by FAA regulations, Part 77, "Objects Affecting Navigable Airspace."

##### **Recapture Lake R&PP Lease**

There would be no surface occupancy in the 20-acre developed area. In the remainder of the R&PP lease, development or exploration activities would be allowed from November 1 to March 31. The seasonal restriction does not apply to maintenance or operation of a recreation facility or grazing operation.

##### **Blanding Education Center R&PP Lease**

There would be no surface occupancy on 120 acres except as authorized in the R&PP lease.

#### **MATERIAL SITE RIGHTS-OF-WAY**

Material site rights-of-way (900 acres) are segregated from mineral entry as long as the right-of-way is in effect. These are listed in chapter 2, but are not mapped. When the grantee relinquishes the right-of-way, the lands would be reopened to mineral entry.

## CHAPTER 4 - IMPLEMENTATION AND MONITORING

### OVERVIEW

This implementation and monitoring plan describes monitoring procedures to be followed, implementation schedules, and other information that is part of the resource management plan (RMP). RMP implementation is expected to be complete within 10 years after adoption, except for certain grazing decisions.

### USING THE RESOURCE MANAGEMENT PLAN

In using the RMP, the Bureau of Land Management (BLM) will

- implement the plan decisions;
- monitor both implementation and decisions to ensure that the plan remains current and evaluate the results; and
- modify the RMP in response to the monitoring process or specific proposals through maintenance, plan amendment, or plan revision.

### IMPLEMENTING THE PLAN DECISIONS

Implementation translates the plan decisions (management actions, activity plans, land allocations, etc.) into on-the-ground action. It includes such diverse items as

- providing personnel and equipment to make physical changes, such as constructing facilities for a developed recreation site;
- changing land-status plats to reflect land-allocation decisions, and issuing leases and permits accordingly;
- taking actions to inform the public, such as printing maps of ORV-use designations; and

- tailoring BLM's budget and staff requirements to ensure that plan decisions can be put into action.

Implementation also means establishing priorities and schedules. Some actions have established schedules that must be met. For example, all grazing-use decisions must be issued within 5 years following publication of the rangeland program summary (RPS), which will be published with the final RMP. Other decisions take effect immediately when the RMP is adopted, or provide for ongoing action in response to specific project requests.

The RMP provides BLM with a systematic way to prioritize funding and personnel management. Decisions in the RMP shape BLM's goals and objectives for managing public lands and resources; the RMP's primary goals should be given priority in allocating work months and project funding. Besides informing the public of BLM's priorities, the RMP serves as a "contract" among different levels of management within the agency to ensure that BLM's financial planning process supports the plan goals and objectives.

### MONITORING AND EVALUATION

Monitoring the RMP includes both on-the-ground resource indicators and the land-use decisions themselves, and should provide ongoing answers to the following questions:

- Are the management decisions in the RMP being implemented in a timely manner?
- Are plan decisions being carried out through site-specific activity plans?

- Were the impacts to the human environment (beneficial or adverse) projected accurately in the environmental impact statement (EIS), and are prescribed mitigation measures effective in decreasing adverse impacts?
- Are the projects or prescriptions, as implemented, successful in achieving the desired result of resource protection or resource production?
- Are the planning decisions, as implemented, successful in meeting the goals and objectives of the RMP selected?
- Are the RMP goals and objectives valid and appropriate to meet public needs for use of public lands and resources?

Plan monitoring is important to ensure that the RMP is a useful management tool. It points out both successes and inadequacies in the RMP and is used to keep the plan current. Monitoring provides the manager with evaluation to ensure that laws, regulations, and policies are being met; that management programs are proceeding in the desired direction; and that the resource conflicts and administrative problems identified in the RMP are being adequately resolved.

## MODIFYING THE PLAN

The RMP can be modified through plan maintenance, plan amendment, or plan revision.

## ANTICIPATED IMPLEMENTATION AND MONITORING NEEDS

Table 17 lists, by management program, the anticipated priorities, implementation, scheduling, and monitoring needs for the RMP. This general table is intended to give a framework for the types of implementation actions, general schedules, and broad objectives of monitoring for the management actions given in the plan.

For some programs, implementation depends upon further agency action and cannot be anticipated. Coal implementation depends on an unsuitability analysis, wilderness or wild-and-scenic-river designations on Congressional action, and hazardous-waste management on formulation of agency policy. A more detailed monitoring plan for grazing management will be found in the RPS. The range monitoring plan is required by the agreement stemming from the court-ordered grazing studies.

TABLE 17

Anticipated Implementation and Monitoring of Resource Management  
Plan Decisions, by Management Program

<u>Program</u>	<u>Implementation</u>	<u>Schedule</u>	<u>Monitoring Objectives</u>
4111 Oil and Gas Management	Issue leases with proper stipulations and special conditions (by USO).	Immediate upon approval of RMP.	Ensure that plats are correct and leases are issued with proper conditions.
	Apply RMP stipulations and special conditions to applications for permit to drill (APDs) and other projects through NEPA documentation.	Ongoing.	Ensure compliance with NEPA; <sup>a</sup> determine if RMP objectives are valid.
	Apply RMP stipulations and special conditions to geophysical activities where possible.	Ongoing.	Ensure compliance with FLPMA.
4113 Geothermal Management	Amend RMP to develop lease stipulations and special conditions, if geothermal leases are issued.	Undetermined.	If leased, ensure that plats are correct and and leases issued with proper conditions; field check for presence or absence of geothermal resources.
4121 Coal Management	Apply RMP stipulations and special conditions to coal exploration.	Ongoing.	Ensure compliance with NEPA; <sup>a</sup> determine if RMP objectives are valid.
	Amend RMP to determine coal leasing unsuitability, lease stipulations, and special conditions, if coal leases are issued.	Undetermined.	If leased, ensure that plats are correct and and leases issued with proper conditions.
4122 Tar Sand Management	Issue leases with proper stipulations and special conditions (by USO).	Immediate upon approval of RMP.	Ensure that plats are correct and leases issued with proper conditions.
4131 Mineral Materials Management	Apply RMP stipulations and special conditions to applications for disposal through NEPA documentation.	Ongoing.	Ensure compliance with NEPA; <sup>a</sup> determine if RMP objectives are valid.

TABLE 17 (Continued)

<u>Program</u>	<u>Implementation</u>	<u>Schedule</u>	<u>Monitoring Objectives</u>
4132 Mining Law Administration	Apply for withdrawals (by Secretarial Order); snow on plats.	Within 2 years after approval of RMP.	Ensure that plats are correct.
	Prioritize as follows: - San Juan River, in SRMA; - Developed recreation sites; - Grand Gulch special emphasis area, Cedar Mesa ACEC; - Scenic Highway Corridor ACEC; - Indian Creek ACEC; - Butler Wash ACEC; - Valley of the Gods special emphasis area and ROS P-class, Cedar Mesa ACEC; - Pearson Canyon SRMA; - prior classifications and segregations, acquired lands, and DOE withdrawal.		
	Apply RMP stipulations and special conditions to plans of operation through NEPA documentation.	Ongoing.	Ensure compliance with NEPA; <sup>a</sup> determine if RMP objectives are valid.
	Review notices of intent.	Ongoing.	Ensure compliance with FLPMA. <sup>b</sup>
4133 Other Nonenergy Leasables	Issue leases with proper stipulations and special conditions (by USO).	Immediate upon approval of RMP.	Ensure that plats are correct and leases issued with proper conditions.
	Apply RMP stipulations and special conditions to exploration permits and exploration and mining operations.	Ongoing.	Ensure compliance with NEPA; <sup>a</sup> determine if RMP objectives are valid.



TABLE 17 (Continued)

<u>Program</u>	<u>Implementation</u>	<u>Schedule</u>	<u>Monitoring Objectives</u>
4211 Rights-of-Way	Apply RMP stipulations and special conditions to right-of-way grants.	Ongoing.	Ensure compliance with NEPA; <sup>a</sup> determine if RMP objectives are valid.
4212 Lands	Apply RMP stipulations and special conditions to lands and realty applications, permits, sales, and leases through NEPA documentation.	Ongoing.	Ensure compliance with NEPA; <sup>a</sup> determine if RMP objectives are valid.
	Use RMP objectives to determine whether land disposals are in the national interest.	Ongoing.	Watch for cumulative impacts; see if RMP objectives are met; determine if RMP objectives are valid.
	Resolve unauthorized land uses to meet RMP goals and objectives.	Ongoing.	Watch for cumulative impacts; see if RMP objectives are met; determine if RMP objectives are valid.
4220 Withdrawal Processing and Review	Use RMP objectives to determine whether existing and proposed withdrawals are in the national interest.	Ongoing.	Watch for cumulative impacts; see if RMP objectives are met; determine if RMP objectives are valid.
4311 Forest Management	Designate sites for private harvest of dead fuelwood products through NEPA documentation.	Ongoing (2 sites within 1 year after approval of RMP; one site per fiscal year thereafter.	Ensure compliance with NEPA; <sup>a</sup> determine if RMP objectives are valid.
	Prioritize as follows: <ul style="list-style-type: none"> <li>- Cedar Mesa ACEC;</li> <li>- areas near Navajo Indian reservation;</li> <li>- areas near Blanding;</li> <li>- areas near Monticello;</li> <li>- other areas as needed.</li> </ul>		

TABLE 17 (Continued)

<u>Program</u>	<u>Implementation</u>	<u>Schedule</u>	<u>Monitoring Objectives</u>
4311 Forest Management (concluded)	<p>Designate sites for private and commercial harvest of other woodland products through NEPA documentation.</p> <p>Prioritize as follows:</p> <ul style="list-style-type: none"> <li>- Cedar Mesa ACEC;</li> <li>- areas near Navajo Indian reservation;</li> <li>- areas near Blanding;</li> <li>- areas near Monticello;</li> <li>- other areas;</li> </ul>	<p>Within 2 years after approval of RMP for juniper posts and Christmas trees; ongoing for other sites.</p>	<p>Ensure compliance with NEPA;<sup>a</sup> determine if RMP objectives are valid.</p>
4312 Forest Development	<p>Provide forest development projects in keeping with RMP stipulations and special conditions through NEPA documentation.</p>	<p>Ongoing.</p>	<p>Ensure compliance with NEPA;<sup>a</sup> determine if RMP objectives are valid.</p>
4322 Grazing Management	<p>License grazing use and exclude livestock from specific areas listed in RMP.</p> <p>Prioritize as shown in RPS (published with final RMP).</p> <p>Change season of use on certain allotments to meet RMP objectives.</p> <p>Prioritize as shown in RPS.</p> <p>Modify or prepare AMPs; apply RMP stipulations and special conditions through NEPA documentation.</p> <p>Prioritize as shown in RPS.</p>	<p>Within 2 years after approval of RMP.</p> <p>Within 2 years after approval of RMP.</p> <p>Ongoing.</p>	<p>See RPS.</p> <p>See RPS.</p> <p>Ensure compliance with NEPA;<sup>a</sup> determine if RMP objectives are valid.</p>

TABLE 17 (Continued)

<u>Program</u>	<u>Implementation</u>	<u>Schedule</u>	<u>Monitoring Objectives</u>
4322    Grazing Manage- ment (concluded)	Maintain existing land treatments and provide new land treatments; apply RMP stipulations and special conditions through NEPA documentation.	Ongoing (over a 10-year period).	Ensure compliance with NEPA; <sup>a</sup> determine if RMP objectives are valid.
	Designate Bridger Jack Mesa and Lavender Mesa ACECs.	Immediate upon approval of RMP.	Ensure that plats are correct.
	Prepare management plans for special designation areas; incorporate RMP objectives through NEPA documentation.	Within 1 year after approval of RMP.	Ensure compliance with management plans; watch for cumulative impacts; determine if special values are properly protected; determine if designation remains valid.
	Prioritize as follows: - Bridger Jack Mesa ACEC; - Lavender Mesa ACEC.		
4331    Natural History/ Cultural Resources Management	Apply legal requirements and use RMP objectives to manage cultural resources in the national interest.	Ongoing.	Ensure compliance with NEPA; <sup>a</sup> determine if RMP objectives are valid.
	Designate Alkali Ridge, Cedar Mesa, Hovenweep, and Shay Canyon ACECs.	Immediate upon approval of RMP.	Ensure that plats are correct.
	Prepare management plans for special designation areas; incorporate RMP objectives through NEPA documentation.	Ongoing - one ACEC management plan per fiscal year.	Ensure compliance with management plan; watch for cumulative impacts; determine if special values are properly protected; determine if designation remains valid.
	Prioritize as follows: - Alkali Ridge ACEC; - Cedar Mesa ACEC; - Shay Canyon ACEC; - Hovenweep ACEC.		

TABLE 17 (Continued)

<u>Program</u>	<u>Implementation</u>	<u>Schedule</u>	<u>Monitoring Objectives</u>
4331 Natural History/ Cultural Resources Management (concluded)	<p>Nominate properties to the National Register of Historic Places.</p> <p>Prioritize as follows:</p> <ul style="list-style-type: none"> <li>- Cedar Mesa Archaeologic District;</li> <li>- Fable Valley Archaeologic District;</li> <li>- Tin Cup Mesa Archaeologic District;</li> <li>- Ruin Spring Cultural Property;</li> <li>- Kachina Panel Cultural Property;</li> <li>- Monarch Cave Cultural Property;</li> <li>- Three-Story Ruin Cultural Property.</li> </ul> <p>Prepare CRMPs; apply RMP stipulations and special conditions through NEPA documentation.</p> <p>Prioritize as follows:</p> <ul style="list-style-type: none"> <li>- Alkali Ridge NHL;</li> <li>- Cedar Mesa Archaeologic District;</li> <li>- Fable Valley Archaeologic District.</li> </ul>	<p>Ongoing - one nomination every 2 fiscal years.</p> <p>Ongoing - one CRMP every 3 fiscal years.</p>	<p>Ensure compliance with NEPA;<sup>a</sup> determine if RMP objectives are valid.</p> <p>Ensure compliance with NEPA;<sup>a</sup> determine if RMP objectives are valid.</p>
4332 Wilderness Management	Reserved. <sup>c</sup>	Reserved.	Reserved.
4333 Recreation/ Visual Resources Management	Designate Butler Wash, Cedar Mesa, Dark Canyon, Indian Creek, and Scenic Highway Corridor ACECs.	Immediate upon approval of RMP.	Ensure that plats are correct.

TABLE 17 (Continued)

<u>Program</u>	<u>Implementation</u>	<u>Schedule</u>	<u>Monitoring Objectives</u>
4333 Recreation/ Visual Resources Management (continued)	Prepare management plans for special designation areas; incorporate RMP objectives through NEPA documentation.	Ongoing - one ACEC management plan per fiscal year.	Ensure compliance with management plans; watch for cumulative impacts; determine if special values are properly protected; determine if designation remains valid.
	Prioritize as follows: - Scenic Highway Corridor ACEC; - Cedar Mesa ACEC; - Dark Canyon ACEC; - Indian Creek ACEC; - Butler Wash ACEC.		
	Designate special recreation management areas (SRMAS) for Canyon Basins, Grand Gulch Plateau, Pearson Canyon, and San Juan River.	Immediate upon approval of RMP.	Prepare maps of SRMAS.
	Prepare management plans for SRMAS; incorporate RMP objectives through NEPA documentation.	Ongoing - one SRMA per fiscal year.	Ensure compliance with NEPA; <sup>a</sup> determine if RMP objectives are valid.
	Prioritize as follows: - San Juan River SRMA; - Grand Gulch Plateau SRMA; - Canyon Basins SRMA; - Pearson Canyon SRMA.		
	Modify or construct facilities at developed recreation sites; incorporate RMP objectives through NEPA documentation.	Ongoing.	Ensure compliance with NEPA; <sup>a</sup> determine if RMP objectives are valid.
	Prioritize as follows: - Sand Island campground; - Mexican Hat launch site; - Indian Creek Falls campsite; - Comb Wash campsite; - Indian Creek campsite; - Arch Canyon campsite; - Pearson Canyon hiking trail and campsite.		

TABLE 17 (Continued)

<u>Program</u>	<u>Implementation</u>	<u>Schedule</u>	<u>Monitoring Objectives</u>
4333 Recreation/ Visual Resources Management (concluded)	Apply ORV designations; document through ORV imple- mentation plan; apply RMP objectives through NEPA documentation.	Within 1 year after approval of RMP.	Ensure compliance with NEPA; <sup>a</sup> deter- mine if RMP objec- tives are valid.
	Apply visual resources management classes in designated areas.	Immediate upon approval of RMP.	Watch for cumulative impacts; see if RMP objectives are met; determine if objec- tives are valid.
	Conduct suitability studies for wild and scenic river designations; coordinate with other agencies involved in joint studies and in pre- paring legislative EIS.	Within 5 years after adoption of RMP.	Ensure studies are completed; determine followup actions; de- termine if RMP objec- tives are valid.
	Prioritize as follows: - San Juan River; - White Canyon; - Colorado River.		
4341 Soil, Water, and Air Management	Apply RMP stipulations and special conditions to watershed control and air quality related projects through NEPA documentation.	Ongoing.	Ensure compliance with NEPA; <sup>a</sup> deter- mine if RMP objec- tives are valid.
	Prioritize as follows: - Montezuma Creek; - Indian Creek.		
	Prepare a SJRA Water Quality Monitoring Plan.	Within 2 years after completion of RMP.	Ensure compliance with State water quality standards and NEPA. Monitor for progress toward meeting RMP and activity plan objec- tives, and for identi- fication of areas that need to have activity plans prepared for water quality manage- ment. Establish base- line and trends for both surface and ground water re- sources.

TABLE 17 (Continued)

Program	Implementation	Schedule	Monitoring Objectives
4342 Hazardous Waste Management	Identify active and abandoned hazardous materials sites, if present, on a case-by-case basis. Coordinate with state and federal agencies having jurisdiction. Determine if further assessment of potential hazardous materials sites is needed.	Ongoing.	Identify areas that require cleanup of hazardous wastes. Monitor contracts for site assessment and cleanup.
4351 Habitat Management	Apply RMP stipulations and special conditions to habitat management projects.	Ongoing.	Ensure compliance with NEPA; <sup>a</sup> determine if RMP objectives are valid.
	Modify HMPs as necessary to meet RMP objectives; implement HMPs; apply RMP stipulations and special conditions through NEPA documentation.	Ongoing.	Ensure compliance with NEPA; <sup>a</sup> determine if RMP objectives are valid.
	Prioritize as follows: - White Canyon-Red Canyon HMP; - Beef Basin HMP; - Hatch Point HMP.		
	Prepare management plans for Cajon Pond special emphasis area of Hovenweep ACEC and upper Indian Creek special emphasis area of Shay Canyon ACEC. Incorporate RMP objectives through NEPA documentation.	Within 2 years after approval of RMP.	Ensure compliance with management plans; watch for cumulative impacts; determine if special values are properly protected; determine if designation remains valid.
	Conduct aquatic life assessments, wetland and riparian area inventories, and inventories for species of high federal interest.	Ongoing.	Identify areas in poor condition that would benefit from application of detailed activity plans.

TABLE 17 (Concluded)

<u>Program</u>	<u>Implementation</u>	<u>Schedule</u>	<u>Monitoring Objectives</u>
4352 Endangered Species Management	Apply legal requirements; apply RMP stipulations and special conditions through NEPA documentation.	Ongoing.	Ensure compliance with NEPA; <sup>a</sup> determine if RMP objectives are valid.
	Conduct inventories for T/E species known to occur in the region.	Ongoing.	Identify habitat areas that would benefit from development of detailed management plans.
4360 Fire Management	Prepare fire management plan to meet RMP objectives; apply RMP stipulations and special conditions through NEPA documentation.	Within 1 year after approval of RMP.	Ensure compliance with NEPA; <sup>a</sup> determine if RMP objectives are valid.

<sup>a</sup>Compliance with NEPA requires compliance with EA, EIS, or categorical exclusion stipulations; watching for cumulative impacts; mitigation of projected impacts; determining whether RMP stipulations and special conditions are necessary to meet objectives; analyzing impacts to operators; and assessing the resource condition.

<sup>b</sup>Compliance with FLPMA requires prevention of unnecessary and undue degradation of public lands and resources.

<sup>c</sup>Implementation and monitoring depends on designations that would be made independently of the RMP and cannot be anticipated at this time.



FINAL ENVIRONMENTAL IMPACT STATEMENT  
FOR THE PROPOSED SAN JUAN RESOURCE MANAGEMENT PLAN  
MOAB DISTRICT  
UTAH

VOLUME 1 OF 2 VOLUMES

Final Environmental Impact Statement  
Additions and Changes to the Draft Document  
Appendixes  
Back Matter

# INTRODUCTION TO THE FINAL EIS

## OVERVIEW

This is the final environmental impact statement (EIS) for the San Juan Resource Management Plan (RMP).

The final EIS presents the revisions and corrections to the draft EIS. Revisions have been made either in response to comments from the public or other agencies, to incorporate corrections or clarifications made by the EIS team, or because of changes initiated by management or resulting from policy changes.

Volume 2 of the final EIS contains public and agency comments on the draft RMP/EIS, and BLM's response to those comments.

## REVISIONS AND CORRECTIONS

The San Juan final EIS has been prepared using an abbreviated format: the complete text has not been printed. This document contains only the changes and revisions to the draft EIS; therefore, to fully understand the final EIS, the reader must have a copy of the draft. Where no revisions to the draft are indicated, the

text of the final is the same as the draft EIS printed in May of 1986.

The draft EIS was prepared using estimated acreages. In most cases, these estimates were carried into the final EIS. Acreage figures will be refined in the final RMP.

## HOW TO FOLLOW THE REVISIONS IN THIS SECTION

To assist the reader, revisions are given in order printed in the draft RMP/EIS. The draft document page number is provided at left, followed by the column number, table, or figure in which the change is to be made. Where an underlined heading follows the column number, the reader should begin at that heading on the page in the draft RMP/EIS and locate the paragraph and line specified. Where no underlined heading appears, the reader should begin at the top of the column indicated and locate the paragraph and line specified. When a column begins with a partial paragraph continued from the previous column or page, the partial paragraph counts as paragraph 1.

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## REVISIONS TO THE SUMMARY

### INTRODUCTION

The entire revised summary is printed here.

The San Juan Resource Management Plan (RMP) is being prepared as required by the Federal Land Policy and Management Act of 1976 in accordance with the Bureau of Land Management (BLM) planning regulations (43 CFR 1600) and to meet a court order for completion of a grazing environmental impact statement (EIS) for the San Juan Resource Area (SJRA).

The RMP will guide management of all public lands and resources administered by SJRA, which is part of the Moab District and covers the southern two-thirds of San Juan County, Utah. SJRA administers certain aspects of some resources on federal lands administered by U.S. Forest Service, National Park Service, and Bureau of Indian Affairs on the Navajo Indian reservation.

### FORMAT

The final EIS presents revisions and corrections to the draft EIS, public and agency comments on the draft, and BLM's response to those comments.

The San Juan final EIS uses an abbreviated format. This document contains only the revisions to the draft EIS; therefore, to fully understand the final EIS, the reader must have a copy of the draft. Where no revisions are indicated, the text of the final is the same as that of the draft printed in May 1986.

### CHANGES TO THE DRAFT

The majority of changes to the draft involve revisions to alternative D, which would maximize protection of cultural resources and minimize surface disturbance, and to alternative E, the

preferred alternative. Corresponding changes were made in the analyses of these alternatives.

Revised alternative D would provide management emphasis to protect special values at risk through designation of the following 11 areas of critical environmental concern (ACECs).

<u>Area</u>	<u>Values Protected</u>	<u>Acreage</u>
Alkali Ridge	cultural	170,320
Beef Basin	scenic, cultural	72,880
Cedar Mesa	scenic, cultural	404,710
Hovenweep	cultural	2,000
Lockhart Basin	scenic	56,660
Moki-Red Canyon	cultural	71,020
Nakai Dome	cultural	90,850
North Abajo	cultural	65,450
Scenic Highway		
Corridor	scenic	60,220
Valley of the Gods	scenic	38,360
White Canyon	scenic	175,810

The revised preferred alternative would provide management emphasis to protect special values at risk through designation of the following 10 ACECs.

<u>Area</u>	<u>Values Protected</u>	<u>Acreage</u>
Alkali Ridge	cultural	35,890
Bridger Jack Mesa	vegetation	5,290
Butler Wash	scenic	13,870
Cedar Mesa	scenic, cultural	323,760
Dark Canyon	natural	62,040
Hovenweep	cultural	1,500
Indian Creek	scenic	13,100
Lavender Mesa	vegetation	640
Scenic Highway		
Corridor	scenic	78,390
Shay Canyon	cultural	1,770

Minor changes were made to correct or revise the descriptions of the other alternatives, the affected environment, and the analyses of other alternatives.

#### PLANNING DOCUMENTS

Five documents are prepared to record the RMP process. The preplanning analysis was completed in September 1984. The management situation analysis (MSA) was completed in September 1985. The draft RMP/EIS was published in May 1986. This proposed RMP and final EIS was prepared in September 1987. The final RMP and record of decision for the EIS is scheduled for publication in January 1988.

#### ALTERNATIVES ASSESSED

The five alternatives analyzed in this final EIS present different ways of answering the questions raised by the planning issues. These answers were used to formulate specific management actions under each alternative.

Existing management practices that were determined adequate, along with administrative changes based on the management opportunities identified in the MSA (management actions common to all alternatives) are considered to be part of every alternative.

Five alternative plans are considered in detail in this EIS. Each plan presents guidance for all resource programs managed by SJRA. Except for alternative A, each plan presents generalized zones or levels of management that would be applied to all public-land uses (table S-1, as revised). All acreages used in the alternatives are estimates and may be subject to adjustment.

**Alternative A** (the no action alternative for the RMP and the grazing EIS)

- represents continuation of current management; and
- provides a baseline for comparing the other alternatives and the effects of their implementation.

**Alternative B** (figure S-1) gives priority to

- production of mineral resources; and

- production of forage and use of public lands for grazing.

**Alternative C** (figure S-2) gives priority to

- use of the public lands for recreation by maintaining the spectrum of recreational opportunities now present;
- production of wildlife habitat and protection of specialized wildlife habitats; and
- preserving watershed values through protection of certain soils resources.

**Alternative D** (revised figure S-3) gives priority to

- preserving natural succession of plant communities by minimizing surface disturbance, particularly in four specific areas;
- protecting cultural resources beyond the requirements of law in certain areas; and
- increasing the extent of areas available for primitive uses.

**Alternative E** (the preferred alternative for the RMP and the grazing EIS; revised figure S-4) gives priority to

- protecting the opportunity for primitive and semiprimitive recreation uses in certain areas;
- protecting scenic values in certain areas;
- protecting cultural resources beyond the requirements of law in certain areas;
- protecting certain wildlife habitat areas;
- preserving watershed values through protection of certain soils resources;
- continuing livestock grazing at current use levels in areas where no conflict with other resource values occurs; and
- otherwise making public lands available for the production of mineral resources.

## MITIGATION

Mitigation measures were developed as part of each alternative, to alleviate potential adverse effects of resource development. Under alternative A, it was assumed that existing lease conditions would be applied, and that stipulations and special conditions would be developed and applied to projects on a case-by-case basis. These standard operating procedures were used as a basis of comparison.

Special stipulations or conditions, developed for the other alternatives, are part of those alternatives as assessed in this final EIS. Where no special conditions were developed, it was assumed that the standard operating procedures would be applied. Standard operating procedures and special conditions are given in appendix A.

## SPECIAL DESIGNATIONS

Special management designations were applied under different alternatives to recognize special values on public lands. Under alternative A, it was assumed that special management would continue for the Dark Canyon and Grand Gulch Primitive Areas, whether or not the actual primitive area designation remained. Special management of cultural sites named to the National Register of Historic Places would also continue under alternative A. Different combinations of special designations and special management were applied to specific areas under all other alternatives.

## ENVIRONMENTAL CONSEQUENCES

This final EIS analyzes the impacts to the human environment that would be expected to occur by the year 2000 if management actions identified under the different alternatives were implemented. All acreages and other impact numbers are estimates, based on best available data and professional judgment.

All alternatives would meet the requirements of the National Environmental Policy Act (NEPA) and other environmental-quality-related laws, regulations, and policies. However, because the alternatives are quite different, each presents a result that would be environmentally prefer-

able for different components of the human environment.

A brief comparison of impacts from the different alternatives shows the following.

**Alternative A (no action) would:**

- make the most area available for minerals development and livestock use;
- provide for greatest use of woodland products;
- not change the existing economic conditions; and
- be the least expensive to implement.

**Alternative B would:**

- favor extraction of mineral resources and livestock grazing;
- be the least restrictive to recreational off-road vehicle (ORV) use;
- result in the lowest water quality;
- offer the greatest employment and income, if coal is produced;
- offer the greatest economic benefit to livestock operators; and
- be the most expensive to implement.

**Alternative C would:**

- favor recreation use, particularly primitive backcountry use;
- restrict minerals and livestock uses;
- provide for the highest big game populations;
- offer greatest economic benefit to recreation outfitters; and
- be the second most expensive to implement.

**Alternative D would:**

- be the most restrictive to minerals and livestock use;
- be the most restrictive to ORV use;
- result in the highest water quality;
- offer the most protection for archaeological sites;
- result in the lowest rates of employment, income, and tax revenues;
- be the second least expensive to implement.

**Alternative E (preferred alternative) would:**

- present a balance among different uses of public lands;
- favor recreation use of the San Juan River and backcountry, particularly primitive recreation uses;
- protect archaeological sites in the majority of SJRA to a greater extent than required by law;
- protect scenic resources;
- slightly decrease the area available for minerals uses;
- provide for a slight increase in livestock forage;
- provide for economic benefit to tour operators about the same as alternative C;
- cost more to implement than alternative D, but less than alternative C.

**PUBLIC REVIEW AND COMMENT**

The draft RMP/EIS was issued to agencies, organizations, and individuals for a 5-month formal

review and comment period, which ended on Monday, November 3, 1986. An open house was held at the SJRA office on July 16, 1986.

A total of 112 comments were received on the content of the draft EIS within the review period. These are printed in this final EIS, along with BLM's response.

The final EIS contains corrections and changes made to the draft in response to these comments and agency review. Revisions have also been made as a result of changes in agency policy and procedures.

**FINALIZING THE RMP**

The proposed RMP will become the final RMP unless changes are required as a result of either public protest or the Governor's review.

BLM planning regulations provide for the Governor to have 60 days to identify any known inconsistencies between the proposed RMP and state or local plans, policies or programs (43 CFR 1610.3-2(e)).

A 30-day public protest period will follow the publication of the proposed RMP and final EIS. Any party who has participated in this planning process, and who may be adversely affected by the provisions of this proposed RMP, may submit a written protest to the BLM Director. A protest may raise only those issues which were submitted for the record during the planning process and must meet the requirements given at 43 CFR 1610.5-2. Protests should be sent to:

Director, Bureau of Land Management  
18th and C Streets, N.W.  
Washington, D.C. 20240

The final RMP will be issued after the end of the 30-day protest period and the 60-day Governor's review, or after any protests received are resolved by the Director. The record of decision for the EIS will be issued concurrently with the final RMP.

TABLE S-1  
Generalized Management Zones, by Alternative





Management Zone	Alternative B	Alternative C	Alternative D	Alternative E (Preferred Alternative)
Standard surface use	Standard conditions: 1,770,100 ac.	Standard conditions: 384,920 ac.	Standard conditions: 0 ac.	Standard conditions: 482,510 ac.
Limited surface use	Special conditions: 6,540 ac.	Special conditions: 683,040 ac.	Special conditions: 463,030 ac.	Special conditions: 923,450 ac.
	Surface restrictions to protect: -floodplains, riparian/aquatic areas -existing land leases	Surface restrictions to protect: -Alkali Ridge ACEC -Lockhart Basin ACEC -North Abajo ACEC -big game habitat -five identified mesa tops -floodplains, riparian/aquatic areas -sensitive soils -ROS SPM class -existing land leases  Seasonal restrictions to protect: -bighorn sheep lambing and rutting areas -antelope fawning area -deer winter range	Surface restrictions to protect: -floodplains, riparian/aquatic areas -sensitive soils -vegetation resources -existing land leases	Surface restrictions to protect: -Alkali Ridge ACEC -Cedar Mesa ACEC, partial -Hovenweep ACEC, partial -Shay Canyon ACEC -floodplains, riparian/aquatic areas -sensitive soils -most ROS SPMN-class areas -existing land leases  Seasonal restrictions to protect: -bighorn sheep lambing and rutting areas -antelope fawning area -deer winter range
No surface occupancy	2,550 ac.	711,230 ac.	241,270 ac.	373,230 ac.
	Exclude surface disturbance to protect: -Bridger Jack Mesa RNA -Lavender Mesa RNA -developed recreation sites	Exclude surface disturbance to protect: -Bridger Jack Mesa ACEC -Lavender Mesa ACEC -Grand Gulch ACEC -ROS SPMN-class areas -ROS P-class areas -developed recreation sites	Exclude surface disturbance to protect: -Alkali Ridge ACEC -Hovenweep ACEC -Lockhart Basin ACEC -White Canyon ACEC, partial -developed recreation sites	Exclude surface disturbance to protect: -Bridger Jack Mesa ACEC -Butler Wash ACEC -Cedar Mesa ACEC, partial -Dark Canyon ACEC -Hovenweep ACEC, partial -Indian Creek ACEC -Lavender Mesa ACEC -Scenic Highway Corridor ACEC -most ROS P-class areas -San Juan River SRMA SPM class -Pearson Canyon SRMA -developed recreation sites
No grazing use	2,550 ac.	77,750 ac.	11,760 ac.	138,080 ac.
	Exclude grazing use to protect: -Bridger Jack Mesa RNA -Lavender Mesa RNA -developed recreation sites	Exclude grazing use to protect: -Bridger Jack Mesa ACEC -Grand Gulch ACEC (partial) -Lavender Mesa ACEC -floodplains, riparian/aquatic areas -five identified mesa tops -developed recreation sites	Exclude grazing use to protect: -Bridger Jack Mesa RNA -Lavender Mesa RNA -Grand Gulch, in Cedar Mesa ACEC -floodplains, riparian/aquatic areas -developed recreation sites	Exclude grazing use to protect: -Bridger Jack Mesa ACEC -Dark Canyon ACEC -Grand Gulch, in Cedar Mesa ACEC -Lavender Mesa ACEC -five identified mesa tops -Pearson Canyon SRMA -developed recreation sites
No permanent resource use or production	No permit or lease: 0 ac.	No permit or lease: 0 ac.	No permit or lease: 1,074,890 ac.	No permit or lease: 0 ac.
			To protect: -Beef Basin ACEC -Cedar Mesa ACEC -Moki-Red Canyon ACEC -North Abajo ACEC -Mokai Dome ACEC -Scenic Highway Corridor ACEC -Valley of the Gods ACEC -White Canyon ACEC, partial -identified natural succession areas	

NOTE: All acreages are approximate and rounded to the nearest 10 acres.



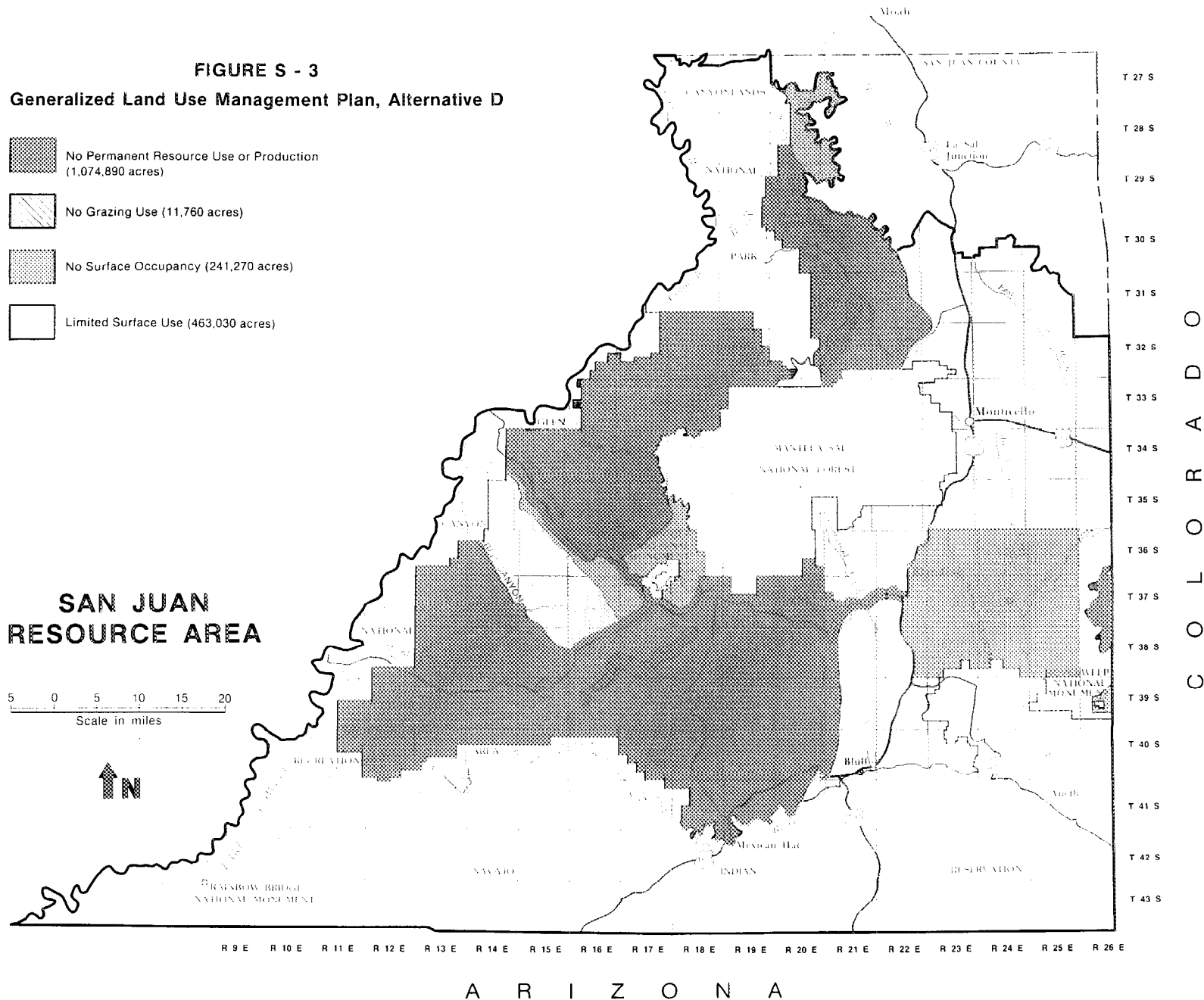
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**FIGURE S - 3**  
**Generalized Land Use Management Plan, Alternative D**

-  No Permanent Resource Use or Production (1,074,890 acres)
-  No Grazing Use (11,760 acres)
-  No Surface Occupancy (241,270 acres)
-  Limited Surface Use (463,030 acres)






**SAN JUAN  
 RESOURCE AREA**

5 0 5 10 15 20  
 Scale in miles



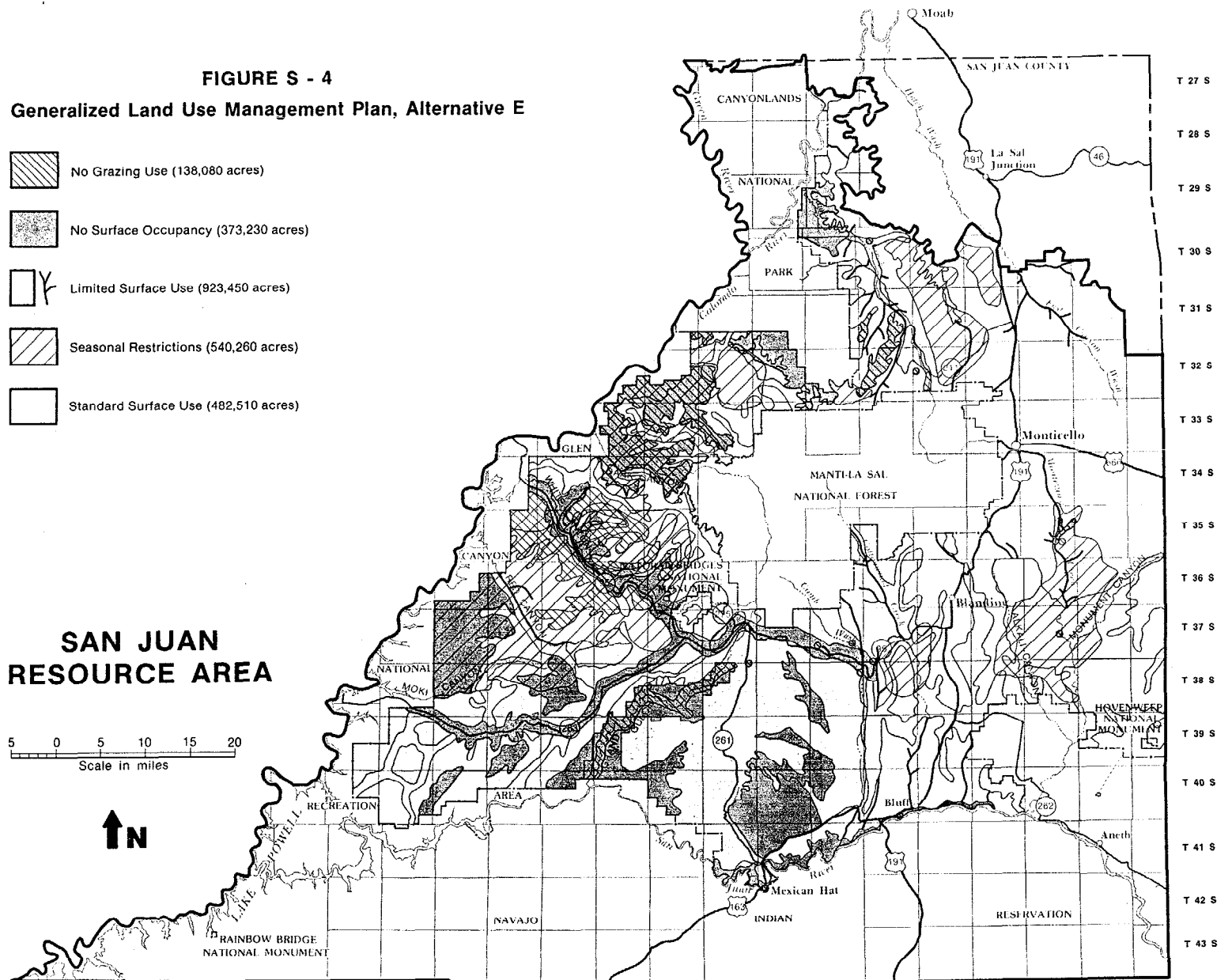
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**FIGURE S - 4**  
**Generalized Land Use Management Plan, Alternative E**

-  No Grazing Use (138,080 acres)
-  No Surface Occupancy (373,230 acres)
-  Limited Surface Use (923,450 acres)
-  Seasonal Restrictions (540,260 acres)
-  Standard Surface Use (482,510 acres)

**SAN JUAN  
 RESOURCE AREA**

5 0 5 10 15 20  
 Scale in miles



R 9 E R 10 E R 11 E R 12 E R 13 E R 14 E R 15 E R 16 E R 17 E R 18 E R 19 E R 20 E R 21 E R 22 E R 23 E R 24 E R 25 E R 26 E

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## REVISIONS TO THE INTRODUCTION

<u>Page</u>	<u>Revision</u>
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- |     |   |
|-----|---|
| I-6 | Table I-2, <u>4211 Rights-of-Way</u> . Move "Designate transportation and utility corridors" from column 3 to column 2. |
| I-6 | Table I-2, <u>4212 Lands</u> . In column 2, delete "and public purposes".   |
| I-7 | Table I-2, <u>4220 Withdrawal Processing and Review</u> . In column 2, add "Identify classifications to be terminated." |

<u>Page</u>	<u>Revision</u>
-------------	-----------------

- |      |  |
|------|--|
| I-10 | Column 2, paragraph 2 (beginning "The SJRA is also..."), line 5, after "minerals" insert "where use is authorized"; line 6, after "federal" insert "leasable and locatable".                     |
| I-21 | Table I-5, under <u>Livestock Grazing</u> , after last entry, insert: "NPS lands in Hovenweep NM, 100.00 [acres administered by SJRA]." Under TOTAL, replace "2,066,809.59" with "2,066,909.59". |

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## REVISIONS TO CHAPTER 1

### Page Revision

1-4 Table 1-1, column 5, line 1. Replace "60,000" with "45,000".

1-4 Table 1-1, after "Dark Canyon ISA", column 4, line 3. Replace "Needles" with "Maze".

1-6 Column 2, Glen Canyon National Recreation Area. Delete the two paragraphs of text and replace with the following:

SJRA has certain administrative responsibilities for grazing and minerals within Glen Canyon National Recreation Area (NRA). These responsibilities are a topic of concern to both BLM and National Park Service (NPS).

The resource-consumptive uses authorized within the NRA are mandated by enabling legislation (Public Law 92-593) to be subordinate to the preservation of scenic, scientific, and historic resources, and to public use and enjoyment of the NRA. Therefore, BLM management practices, objectives, and planned actions for public lands stemming from this RMP may not be applicable or permissible within the NRA boundaries.

Coordination of grazing responsibilities between BLM and NPS on lands within the NRA was addressed in the Umbrella Memorandum of Understanding for Grazing [BLM and NPS, 1984], signed by the directors of NPS and BLM, and in the Interagency Agreement for Grazing Management on Glen Canyon National Recreation Area [BLM and NPS, 1986], signed by the Director, Rocky Mountain Region, NPS, and the State Director, Utah, BLM. Minerals management falls

### Page Revision

under specific laws and regulations and is beyond the discretion of BLM field office personnel. Problems and opportunities for management of these resources within Glen Canyon NRA were identified in the MSA.

Management of wildlife, vegetation, cultural resources, and recreation on NRA lands is within the primary authority of NPS and is addressed in their Natural Resource Management Plan, Cultural Resource Management Plan, General Management Plan (November, 1979), and other planning documents on file with NPS.

1-6 Column 2, before Planning Criteria, insert the following:

#### PLANNING ISSUES AND PROGRAM GUIDANCE

Review of the public comments received on the draft EIS indicates a certain amount of confusion as to what a planning issue is and how it is used. There appears to be a misconception that designation of a planning issue provides for day-to-day management of a natural resource, such as an archaeological site, or influences the budgetary process. Actually, these types of considerations are provided for under the BLM management program system (such as program 4331, Cultural Resources Management). See table 1-2, printed at the end of this section.

The sum purpose of a planning issue is to provide a tool to develop a range of alternatives for consideration in the planning EIS. The planning issues provide questions regarding management of basic



natural resources where the field manager has the discretion to impose different types of management options. The answers to these questions are used to develop the range of alternatives considered in the planning EIS.

However, the answers to the planning issues are not the only source used to develop the management prescriptions shown under the different alternatives considered in the EIS. Legal mandates, resolution of administrative concerns (such as budget or staffing problems), and continuation of past management practices also shape management decisions. These were identified for each management program in the draft EIS under Management Common to All Alternatives in chapter 2.

In the case of cultural resources, management of archaeological sites could conceivably be a planning issue if the manager had the option to decide which sites should be protected and what areas should be open to artifact collection. However, legal mandates are such that this question

is fallacious--by law, all cultural resource sites either listed or eligible for listing on the National Register (essentially all sites in SJRA) must be protected, and all artifact collection is illegal. Within the framework imposed by law, however, the manager does have some options in deciding how the resource should be managed. This was noted by many commentators.

The draft acknowledged this level of discretionary management by establishing cultural resource use zones over the entire resource area, and highlighting certain areas or sites for designation as an ACEC or nomination to the National Register. The draft EIS also provided for development of cultural resource management plans at the activity-plan level. All of these types of actions are spelled out in the management prescriptions for the Cultural Resources Management program, 4331 (draft pages 2-6, 2-20, and 2-56). In the future, management guidance under program 4331 would be used as a basis for funding and staffing.

TABLE 1-2

Differences Between Management Programs and Planning Issues

<u>MANAGEMENT PROGRAM</u>	<u>PLANNING ISSUE</u>
Management programs are used to organize BLM's management of natural resources.	Planning issues are used to develop alternatives for the manager to consider in the planning EIS.
Management of resource programs is the goal (end result) of the RMP.	Planning issues are a tool (means) to reach the goal.
The RMP gives answers (direction) on how management programs will be run.	Planning issues ask questions in the RMP on how basic resources should be managed.
The alternative management program actions shown in the EIS come from either the answers to the planning issues or from management common to all alternatives.	The different answers to the planning issues are used to establish the range of alternatives examined in the planning EIS.
The RMP provides direction for all management programs.	Planning issues are used in the RMP to help decide what management direction is given.
Management program guidance addresses administrative problems (budgets and personnel), legal mandates, and environmental concerns.	By definition, planning issues address discretionary environmental concerns, not administrative or legal problems.
Management programs provide direction for day-to-day management of natural resources on public lands.	Planning issues do not establish on-the-ground resource management.
Management program guidance is used in the BLM budgeting/funding process.	Planning issues are not used in the BLM budgeting/funding process.
Management program guidance is used to develop site-specific activity plans.	Planning issues do not serve to provide site-specific activity plans.
Management programs are used continually over time.	Planning issues serve no function after a planning EIS is completed.

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## REVISIONS TO CHAPTER 2

### Page Revision

- 2-1 Column 1, Introduction, paragraph 4 (beginning "After reviewing..."), revise the first sentence to read "After reviewing public comment and the comments of other agencies, managers have changed the preferred alternative from that shown in the draft RMP/EIS."
- 2-2 Column 2, paragraph 2 (beginning "In addition,..."), line 3. Replace sentence beginning "SJRA would administer..." with "However, geothermal leasing is prohibited within the NRA."
- 2-2 Column 2, 4121 Coal Management. Paragraph 2 (beginning "Leases are..."), delete last sentence (beginning "Before any coal could be removed,...").
- 2-3 Column 1, 4131 Mineral Materials Management. Paragraph 3 (beginning "Free use..."), line 2, replace "in designated areas" with "on all public lands unless otherwise provided for through notice in the Federal Register." Line 3, replace sentence beginning "The entire..." with "No areas have been designated as closed to petrified wood collecting within SJRA."
- 2-3 Column 2, paragraph 2 (beginning "The RMP may..."), line 3. Replace "adoption of the RMP" with "segregation." Line 4. Replace sentence beginning "The RMP cannot..." with "The RMP cannot impose conditions on work done under a notice, but will be used to develop special conditions to apply to operations approved under a plan of operations, regardless of whether the claim was located before or after the adoption of the RMP."

### Page Revision

- 2-3 Column 2, paragraph 6 (beginning "Federally owned..."). Replace paragraph with "Federally owned locatable minerals underlying federal lands administered by NPS within SJRA boundaries are not available for claim location, because all NPS-administered land has been withdrawn from mineral entry. Locatable minerals under the Glen Canyon NRA may be available for lease in the future, but no regulations have yet been formulated to allow for this (see Chapter 5)."
- 2-4 Column 1, 4211 Rights-of-Way. Paragraph 1 (beginning "Lands available..."), line 6. After "designated" insert "transportation and utility".
- 2-4 Column 1, 4211 Rights-of-Way. Paragraph 2 (beginning "Under alternative A..."), line 2. Delete "without designating corridors;". Last line, after "designated as" insert "transportation and utility".
- 2-4 Column 2, paragraph 1 (beginning "Since the demand..."), line 1. Replace first sentence with "Since the demand for major transmission and utility systems is minimal, separate right-of-way corridors will not be designated under any alternative." Line 3, start a new paragraph after "alternative." and insert "Those" before "existing".
- 2-4 Column 2, 4212 Lands. Paragraph 2 (beginning "The RMP will..."), last two lines (continuing to next page). Replace "the sale meets one of the three criteria in Section 203 of the Federal Land Policy and Management Act (FLPMA)" with "they are in the national interest".

Page Revision

- 2-6 Column 1, paragraph 1 (beginning "...trend"), line 4. After "subsequent livestock adjustments." insert "Any change (increase or decrease) in available forage allocation will be made on an individual allotment basis. Equal allocation will be made to livestock and wildlife in allotments with crucial wildlife habitat, so long as it is consistent with management objectives for livestock and wildlife numbers."

In the same paragraph, replace "The first opportunity to make changes based on monitoring results will be 5 years after the RMP is adopted" with "Grazing use decisions will be issued within 5 years after publication of the Rangeland Program Summary following adoption of the RMP."

Then add a new paragraph: "Future changes in existing seasons of use or kind of livestock may be made, provided (1) that the physiological needs of plants are met for sustained yield forage production and (2) that resource conflicts do not result. The decision whether to allow a change in season of use or kind of livestock would be made after assessing the proposal in an environmental assessment."

- 2-6 Column 1, paragraph 3 (beginning "The RMP will..."), line 9. Before last sentence (beginning "Ecological site information..."), insert "Grazing systems such as deferred rotation and rest rotation could be used."
- 2-6 Column 1, paragraph 4 (beginning "Range improvements will..."), line 5. Replace last sentence (beginning "The extent...") with "Land treatments are the only type of range improvements analyzed in the RMP/EIS because feasible locations are known and because significant impacts could result from their implementation. The extent, location, and scheduling of specific range projects will be determined on an individual allotment basis, and will depend on operator contributions and BLM funding capability."

Page Revision

- 2-6 Column 1. Following paragraph 4 (ending "...and BLM funding capability."), add "Maintenance of existing land treatments would be given preference over construction of new land treatments. Maintenance of existing land treatments and construction of new land treatments would be allowed only to meet or maintain active preference."

- 2-6 Column 2, paragraph 1 (beginning "Grazing systems..."), line 2. Revise second sentence (beginning "Seasons of use...") to read "Seasons of use and kinds of livestock may be changed to resolve surface management conflicts identified in the RMP or to change vegetation condition to meet management objectives."

- 2-6 Column 2, paragraph 2 (beginning "The SJRA administers..."), last line, after "under BLM policy and regulations" insert: "and the terms of BLM-NPS agreements (see chapter 5). SJRA also administers grazing privileges on 100 acres within Hovenweeep NM."

- 2-6 Column 2, 4331 Cultural Resources Management. Paragraph 2 (beginning "The BLM will conduct..."), after last sentence (ending "...prepared if needed."), insert "BLM will consult with the Utah State Historic Preservation Office and the Advisory Council On Historic Preservation for a formal or informal consultation under Section 106 of the National Historic Preservation Act before approving or implementing any action that may affect a site listed, or eligible for listing, on the National Register of Historic Places."

- 2-6 Column 2, 4331 Cultural Resources Management. Paragraph 3 (beginning "The BLM will manage..."), replace first sentence with: "BLM will manage cultural resources according to three objectives: informational potential, public values, and conservation."

Page Revision

- 2-7 Column 1, 4333 Recreation Resources Management. Before paragraph 3 (beginning "The SJRA will..."), insert the following:

Portions of the San Juan River, the Colorado River, and the White Canyon drainage are listed as potential wild and scenic study segments under the Wild and Scenic Rivers Act, as amended. BLM has examined these study segments to determine their eligibility for inclusion in the wild and scenic river system and to determine their potential classification as wild, scenic, recreational, or a combination thereof (see appendix DD to the final EIS).

Eligible segments will be studied to determine their suitability for designation as a wild and scenic river. All three segments in SJRA will require a joint study with another federal (NPS, USFS, or BIA). The joint study is tentatively scheduled to take place within 5 years after completion of the RMP. The study will be documented through a legislative EIS prepared by the lead agency for each river segment. The lead agency for the river segments in SJRA has not been determined. BLM will participate in joint suitability for wild and scenic designation with the following priorities: (1) the San Juan River, (2) the Colorado River, and (3) the White Canyon drainage.

Interim management of the river segments will serve to protect the identified values until Congress acts (see appendix DD). Site-specific NEPA documents prepared for any proposals for use of the study segments will take these values into account and provide mitigation for any potentially adverse impacts.

- 2-7 Column 2, 4341, Soil Water and Air Management. After paragraph 1 (ending "productivity as needed..."), add "A determination of the existence of prime and unique farmlands will be made by BLM prior to the approval of any actions."

Page Revision

- 2-8 Column 1, paragraph 1 (beginning "on the USGS STORET..."), line 7. Replace "criteria" with "water quality standards, including designated beneficial uses and antidegradation requirements."

- 2-8 Column 1, 4342 Hazardous Waste Management. Replace the first sentence (beginning "The BLM will...") with the following:

BLM will manage actions on public lands for (1) protection of the health and safety of the public, federal-land users, and BLM employees; (2) compliance with applicable federal and state laws, rules, orders, etc., within the context of BLM's statutory mission as a federal natural resource manager; and (3) cleanup of past problems, control of current problems, and to avoid or minimize future problems of hazardous materials on public lands in a cost-effective manner. At this time (1987), BLM policy regarding hazardous materials management is still being formulated.

BLM will identify active and abandoned hazardous materials sites, if present, on a case-by-case basis. BLM will determine if further assessment of potential hazardous materials is needed.

- 2-8 Column 2, 4352 Endangered Species Management. Paragraph 1, replace first sentence (beginning "No management action...") with "No management action will be permitted on public lands that would jeopardize the continued existence of plant or animal species that are listed, are officially proposed for listing, or are candidates for listing as threatened or endangered. BLM will cooperate with USFWS in writing recovery plans for threatened or endangered species located within SJRA. Also,"

In the same paragraph, line 9, after "protected species." insert "Sensitive species listed by the State would be managed in similar fashion, except that no Section 7 consultation would be required."

Page Revision

- 2-11 Column 2, paragraph 3 (beginning "E -- Continue..."), after "management" insert ", except limit grazing in certain areas to protect wildlife resources")
- 2-11 Column 2, Wilderness Study Area Management. Paragraph 4 (beginning "D -- Protect..."), line 3. After "protect" insert "scenic and". Replace "(also a supplemental value)" with "(also supplemental values)". Paragraph 5 (beginning "E -- Protect most..."), revise line 5 to read "values; protect scenic and cultural resources (supplemental values) in ISAs and some WSAs to a greater extent than law requires; protect some other supplemental values."
- 2-11 Column 2, Vegetation Management. Paragraph 5 (beginning "E -- Protect..."), line 2. After "SJRA to" insert "protect rare or relict plant communities, and to".
- 2-15 Column 1, Wilderness Study Area Management. Line 4, after "natural values" insert ", visual resources, or cultural resources".
- 2-15 Column 2, Alternative E, Goal. Replace the goal statement (beginning "The goal of alternative E...") with the following:
- The goal of alternative E is to manage public lands for multiple use of public resources, within the framework of applicable laws, regulations, and agency policies, as long as certain primitive recreation opportunities, certain cultural resource values, certain scenic values, and certain wildlife habitats and watersheds are protected, grazing use is maintained at existing levels, and minerals uses are otherwise allowed to increase.
- 2-16 Column 1, Livestock Management. Line 4, delete "riparian areas along upper Indian Creek and Cajon Pond, and". Line 6, after "...tops)" insert ", environmental values (Dark Canyon, Bridger Jack Mesa, and Lavender Mesa ACECs), and recreational

Page Revision

- uses (Grand Gulch, Pearson Canyon SRMA, and developed recreation sites),".)
- 2-16 Column 1, Wilderness Study Area Management. Line 4, after "recreation opportunities" replace "or" with ",". After "natural resource values" insert ", visual resources, or cultural resources".
- 2-16 Column 1, Vegetation Management. Line 12, after "...recreation settings," insert "certain cultural resource sites,"; replace "riparian areas," with "Bridger Jack and Lavender Mesas,". Last line, replace "in certain riparian areas" with "from certain uses".
- 2-16 Column 1, Wildlife Habitat Management. Line 2, replace "habitat along upper Indian Creek and Cajon Pond" with "from certain uses".
- 2-16 Column 1, Recreation Management. Line 5, after "in the Squaw" insert "and Cross".
- 2-19 Column 1, Before paragraph 2 (beginning "A summary..."), insert "Although considered under different alternatives in the draft and final EIS, special management designations of research natural area (RNA) and outstanding natural area (ONA) have been replaced by the area of critical environmental concern (ACEC) designation in the preferred alternative and proposed plan. This change was made by BLM's Utah State Director after review of public comments. Many comments addressed special designations, and there appeared to be some confusion as to their applicability. The State Director decided that it would be simpler and more reflective of BLM's legal mandates to consolidate special management designations (where based upon natural values) under the all-inclusive designation of ACEC."
- 2-20 Table 2-2. The revised table is printed at the end of this section.

Page Revision

- 2-27 Figure 2-5. The revised figure is printed at the end of this section.
- 2-29 Figure 2-6. The revised figure is printed at the end of this section.
- 2-39 Figure 2-11. Special Recreation Management Areas (SRMAs). The Dark Canyon, Beef Basin, and Indian Creek SRMAs (items 3, 4, and 5) have been combined into the Canyon Basins SRMA (214,490 acres). The figure has not been reprinted.
- 2-47 Figure 2-15. The revised figure is printed at the end of this section.
- 2-49 Table 2-3. The revised table is printed at the end of this section.
- 2-50 Column 1, Support Requirements. Paragraph 1 (beginning "This document..."), line 6, replace "alternative D" with "alternative C".
- 2-50 Column 2, Tables. Paragraph 4 (beginning "ORV designations..."), line 2, after "table 2-8" insert "Fire management, by alternative, is given in table 2-8A."

Page Revision

- 2-51 Table 2-4. The revised table is printed at the end of this section.
- 2-54 Table 2-5. The revised table is printed at the end of this section.
- 2-60 Table 2-6. The revised table is printed at the end of this section.
- 2-62 Table 2-7. The revised table is printed at the end of this section.
- 2-74 Table 2-8. The revised table is printed at the end of this section.
- 2-76 Table 2-9. The revised table is printed at the end of this section.
- 2-92 Table 2-10. The revised table is printed at the end of this section.



TABLE 2-2

## Alternative Management of Cultural Resources

CULTURAL SITE	Acres by Alternative				
	A	B	C	D	E
<u>National Register Properties</u>					
Alkali Ridge NHL	2,340	2,340	<sup>a</sup> 2,340	<sup>a</sup> 2,340	<sup>a</sup> 2,340
Hole-in-the-Rock Trail	6,110	6,110	6,110	6,110	6,110
Sand Island Petroglyph	b	b	b	b	b
Big Westwater Ruin	b	b	b	b	b
Butler Wash Arch. Dist.	2,030	2,030	2,030	2,030	2,030
Grand Gulch Arch. Dist.	4,240	4,240	4,240	4,240	4,240
Subtotal	14,720	14,720	14,720	14,720	14,720
<u>Potential National Register Eligible Properties</u>					
River House Ruin <sup>C</sup>	0	0	0	0	0
Three Kiva Pueblo <sup>C</sup>	0	0	0	0	0
Butler Wash Ruin <sup>C</sup>	0	0	0	0	0
Mule Canyon Ruin <sup>C</sup>	0	0	0	0	0
Kachina Panel	0	0	b	b	b
Monarch Cave	0	0	b	b	0
Three Story Ruin	0	0	b	b	b
Ruin Spring	0	0	10	10	10
Davis Canyon Archaeo- astronomy Site	0	0	b	b	0
Moon House Ruin	0	0	0	0	0
Shay Canyon Petroglyph	0	0	0	0	0
Subtotal	0	0	10	10	10
<u>Potential National Register Eligible Archaeologic Districts</u>					
Cedar Mesa	0	0	<sup>a</sup> 349,640	<sup>a</sup> 349,640	<sup>a</sup> 349,640
Fable Valley	0	0	<sup>a</sup> 5,030	<sup>a</sup> 5,030	<sup>a</sup> 5,030
Tin Cup Mesa	0	0	2,610	2,610	2,610
Beef Basin	0	0	<sup>a</sup> 34,130	<sup>a</sup> 34,130	0
Indian Creek Canyon	0	0	<sup>a</sup> 740	<sup>a</sup> 740	0
Montezuma Creek	0	0	9,970	9,970	0
Subtotal	0	0	402,120	402,120	357,280
TOTAL	14,720	14,720	416,850	416,850	372,010

<sup>a</sup>Area where a cultural resource management plan (CRMP) would be developed and implemented.

<sup>b</sup>Less than 1 acre.

<sup>c</sup>Not proposed for nomination under any alternative, but recognized as eligible for nomination; less than 1 acre each.

Source: BLM records.

TABLE 2-3

## Alternative Recreation Management Areas

RECREATION MANAGEMENT AREA	Acres by Alternative				
	A	B	C	D	E
<u>Existing Special Recreation Management Areas</u>					
San Juan River	15,100	15,100	15,100	15,100	15,100
Grand Gulch Plateau	385,000	385,000	385,000	385,000	385,000
Dark Canyon	62,040	62,040	62,040	62,040	0
TOTAL	462,140	462,140	462,140	462,140	400,100
<u>Additional Special Recreation Management Areas</u>					
Canyon Basins <sup>a</sup>	0	0	0	0	214,490
Beef Basin	0	0	66,450	66,450	0
Indian Creek	0	0	80,000	80,000	0
Montezuma Creek	0	0	5,300	5,300	0
Pearson Canyon	0	0	0	0	1,920
TOTAL	0	0	151,750	151,750	216,410
<u>Extensive Recreation Management Area</u>					
Remainder of SJRA	1,317,050	1,317,050	1,165,300	1,165,300	1,162,680
<u>DEVELOPED RECREATION SITES</u>					
<u>Existing and Additional Developed Recreation Sites</u>					
Sand Island Campground	20	20	40	20	40
Mexican Hat Launch Site	10	10	20	10	20
Kane Gulch Ranger Station	40	40	40	40	40
Mule Canyon Ruin	10	10	10	10	10
Butler Wash Ruin	60	60	60	60	60
Three Kiva Pueblo	10	10	10	10	10
Comb Wash Campsite	0	0	10	0	10
Arch Canyon Campsite	0	0	10	0	10
Indian Creek Campsite	0	0	20	0	20
Indian Creek Falls Campsite	0	0	10	0	10
Pearson Canyon Hiking Trail and Campsite	0	0	20	0	20
TOTAL	150	150	250	150	250

<sup>a</sup>Includes Dark Canyon SRMA acres.

Source: BLM records.

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TABLE 2-4

## Summary of Estimated Management Costs, by Alternative

SUBACTIVITY/PROGRAM	\$1,000 by Alternative				
	A	B	C	D	E
2300 Access	2.9	2.9	2.9	2.9	2.9
4111 Oil & Gas	233.5	246.0	246.0	117.0	234.2
4121 Coal	0.0	9.6	0.0	0.0	0.0
4122 Tar Sand	0.3	0.3	0.3	0.3	0.3
4131 Mineral Mat'ls.	10.6	10.6	10.6	10.6	10.6
4132 Mining Law	13.1	13.1	29.6	26.9	28.9
4211 Rights-of-Way	35.5	39.1	46.2	56.8	42.7
4212 Lands	61.1	45.9	45.9	45.9	61.1
4220 Withdrawals	3.6	7.5	7.5	15.3	9.4
4311 Forest Mgmt.	18.4	18.4	12.4	22.4	18.4
4322 Grazing	167.1	332.9	223.2	290.6	190.3
4331 Cultural	186.0	156.7	228.4	212.9	228.4
4333 Recreation	47.5	47.1	115.0	101.2	112.1
4341 Soil, Water, Air	38.9	38.9	38.9	35.4	38.9
4342 Hazardous Waste	0.6	0.6	0.6	0.6	0.6
4351 Habitat Mgmt.	76.6	76.6	166.8	148.8	166.8
4352 T/E Species	15.1	15.1	15.1	15.1	15.1
4360 Fire Mgmt.	9.7	9.7	9.7	9.7	9.7
4410 Planning	53.0	55.3	56.8	53.5	58.8
4420 Data Mgmt.	0.2	0.2	0.2	0.2	0.2
4610 Presuppression	41.8	41.8	41.8	41.8	41.8
4620 Firefighting	28.6	24.3	24.3	24.3	24.3
4630 Fire Renab.	0.3	0.3	0.3	0.3	0.3
4711 Building Maint.	48.4	49.7	51.8	48.4	54.4
4712 Recreation Maint.	43.9	43.9	118.0	43.9	118.0
4713 Transportation	50.7	50.7	50.7	50.7	50.7
4714 Engineering	6.0	6.2	6.0	5.9	6.5
4820 Equal Employment	1.8	1.8	2.0	1.8	2.0
4830 Support Services	57.1	60.3	60.8	53.9	65.0
8100 Range Improve.	64.7	539.4	273.0	218.6	131.1
9350 Quarters Maint.	5.7	5.7	5.7	4.9	5.7
TOTAL	1,322.7	1,950.6	1,890.5	1,660.6	1,729.2

Source: BLM records.

TABLE 2-5

## Alternative Management Objectives, by Program

Subactivity Code	Resource Management Program	Alternative A (No Action)	Alternative B	Alternative C	Alternative D <sup>a</sup>	Alternative E (Preferred Alternative)
4111	Oil and Gas Management	To apply current category restrictions to oil and gas leases on public lands; to allow geophysical activity to occur within the limits of present management guidance; and to administer operational aspects of federal oil and gas leases where BLM does not manage the surface.	To maximize the area of public lands available for oil and gas leasing and geophysical activity; to limit restrictions to those required by law, executive order, or regulation; and to administer operational aspects of federal oil and gas leases where BLM does not manage the surface.	To lease public lands for oil and gas, and to allow geophysical activity to occur, only so long as ROS classes, wildlife habitats, and watershed values are protected; and to administer operational aspects of federal oil and gas leases where BLM does not manage the surface.	To lease public lands for oil and gas, and to allow geophysical activity to occur, only so long as the specified criteria are met; and to administer operational aspects of federal oil and gas leases where BLM does not manage the surface.	To lease public lands for oil and gas, and to allow geophysical activity to occur, only so long as certain primitive recreational opportunities, certain cultural resource values, certain scenic values, identified wildlife habitats, and watershed values are protected; and to administer operational aspects of federal oil and gas leases where BLM does not manage the surface.
4113	Geothermal Management	To lease the Warm Springs Canyon prospectively valuable area, subject only to restrictions to protect the existing primitive area.	To lease the Warm Springs Canyon prospectively valuable area, subject only to restrictions required by law, executive order, or regulation.	To lease the Warm Springs Canyon prospectively valuable area only so long as ROS classes, wildlife habitats, and watershed values are protected.	To lease the Warm Springs Canyon prospectively valuable area only so long as the specified criteria are met.	To lease the Warm Springs Canyon prospectively valuable area only so long as primitive recreation opportunities, identified wildlife habitats, and watershed values are protected.
4121	Coal Management	To not provide for leasing coal resources.	To provide for coal leasing if interest is expressed.	To not provide for leasing coal resources.	To not provide for leasing coal resources.	To not provide for leasing coal resources.

4121	Coal Management (Concluded)	To allow for coal exploration within the limits of present management guidance.	To allow for coal exploration subject only to restrictions required by law, executive order, regulation.	To allow for coal exploration only so long as ROS classes, wildlife habitats, and watershed values are protected.	To allow for coal exploration only so long as the specified criteria are met.	To allow for coal exploration only so long as identified primitive recreation opportunities, certain cultural resource values, certain scenic values, identified wildlife habitats, and watershed values are protected.
4122	Oil Shale/Tar Sand Management	To lease White Canyon STSA for CHLs under current category restrictions.	To lease White Canyon STSA for CHLs, subject only to restrictions required by law, executive order, or regulation.	To lease White Canyon STSA for CHLs, only so long as ROS classes, wildlife habitats, and watershed values are protected.	To lease White Canyon STSA for CHLs, only so long as the specified criteria are met.	To lease White Canyon STSA for CHLs, only so long as primitive recreational opportunities, certain scenic values, and identified wildlife habitats are protected.
4131	Mineral Materials Management	To make federal mineral materials available wherever needed.	To make federal mineral materials available wherever needed, subject only to restrictions required by law, executive order, or regulation.	To make federal mineral materials available only so long as ROS classes, wildlife habitats, and watershed values are protected.	To make federal mineral materials available only so long as the specified criteria are met.	To make federal mineral materials available where needed, only so long as certain primitive recreational opportunities, certain cultural resource values, certain scenic values, identified wildlife habitats, and watershed values are protected.
4132	Mining Law Administration	To retain acreage now open for claim location and mineral development; to maintain existing closures to mineral entry; and to administer operational aspects of claims where BLM does not manage the surface.	To maximize the area of public lands available for claim location and mineral development, limited only by law, executive order, or regulation; and to administer operational aspects of claims where BLM does not manage the surface.	To make public lands available for claim location and mineral development, only so long as ROS classes, wildlife habitats, and watershed values are protected; and to administer operational aspects of claims where BLM does not manage the surface.	To make public lands available for claim location and mineral development, only so long as the specified criteria are met; and to administer operational aspects of claims where BLM does not manage the surface.	To make public lands available for claim location and mineral development, only so long as certain recreational opportunities and certain scenic values are protected; and to administer operational aspects of claims where BLM does not manage the surface.

TABLE 2-5 (Continued)

Subactivity Code	Resource Management Program	Alternative A (No Action)	Alternative B	Alternative C	Alternative D <sup>a</sup>	Alternative E (Preferred Alternative)
4133	Mineral Management (Nonenergy Leasables)	To allow minerals leasing and development if interest is expressed.	To encourage minerals leasing and development, as limited only by law, executive order, or regulation.	To allow minerals leasing and development, only so long as ROS classes, wildlife habitats, and watershed values are protected.	To allow minerals leasing and development, only so long as the specified criteria are met.	To allow minerals leasing and development, only so long as certain primitive recreational opportunities, certain cultural resource values, certain scenic values, identified wildlife habitats, and watershed values are protected.
4211	Rights-of-Way	To use existing undesignated transportation and utility corridors where possible; to allow other rights-of-way so long as the primitive areas are protected.	To designate existing transportation and utility corridors; to allow discretionary rights-of-way so long as special designations are protected, and subject to restrictions required by law, executive order, or regulations; and to process other rights-of-way upon request.	To designate existing transportation and utility corridors; to allow discretionary rights-of-way only so long as ROS classes, wildlife habitats, special designations, and watershed values are protected; and to process other rights-of-way upon request.	To designate existing transportation and utility corridors; to allow discretionary rights-of-way only so long as the specified criteria are met and special designations are protected; and to process other rights-of-way upon request.	To designate existing transportation and utility corridors; to allow discretionary rights-of-way only so long as certain primitive recreational opportunities, certain cultural resource values, certain scenic values, identified wildlife habitats, and watershed values are protected; and to process other rights-of-way upon request.
4212	Lands	To dispose of lands previously classified as suitable for disposal in the MFPs or for R&PP for community expansion or private uses; and to process permits, leases, and other actions as needed.	To dispose of lands for community expansion or private uses where livestock grazing or mineral development would not be limited; and to process permits, leases, and other actions as needed.	To dispose of lands for community expansion or private uses where ROS classes, wildlife habitats or watershed values would be protected; and to process permits, leases, and other actions as needed.	To dispose of lands for community expansion or private uses only outside of natural succession areas; and to process permits, leases, and other actions as needed.	To dispose of lands for community expansion or private uses where certain primitive recreational opportunities, certain cultural resource values, certain scenic values, identified wildlife habitats, and watershed

values would be protected; and to process permits, leases and other actions as needed.

4220	Withdrawal Processing and Review	To continue withdrawal review, remove unneeded withdrawals, and process new withdrawals as needed.	To continue withdrawal review, remove unneeded withdrawals, and process new withdrawals as needed, so long as minerals development is not curtailed; and to remove existing classifications that segregate lands from mineral entry.	To continue withdrawal review, remove unneeded withdrawals, and process new withdrawals as needed, so long as ROS classes, wildlife habitats, and watershed values are not foregone; and to recommend withdrawals to protect primitive ROS classes.	To continue withdrawal review, remove unneeded withdrawals, and process new withdrawals as needed; and to recommend withdrawals to protect identified natural succession areas.	To continue withdrawal review, remove unneeded withdrawals, and process new withdrawals as needed.
4311	Forest Management	To continue present management for use of woodland products.	To maximize the use of woodland products so long as grazing and minerals uses are not curtailed.	To allow use of woodland products in areas specified for this use; and to preserve woodland products in other areas to maintain ROS classes and protect wildlife habitats and watershed values.	To allow use of woodland products only in areas that have been identified for this use outside developed recreation sites, identified natural succession areas, and certain special designations, so long as the specified criteria are met.	To allow use of woodland products in areas specified for this use; and to preserve woodland products in other areas to protect certain primitive recreational opportunities, certain cultural resource values, certain scenic values, identified wildlife habitats, and watershed values.
4312	Forest Development	To manage forest resources for sustained yield where woodland products are sold.	To manage forest resources for increased yield where woodland products are sold.	To manage forest resources for sustained yield where woodland products are sold, so long as ROS classes are maintained, wildlife habitat is improved, and watershed values are protected.	To manage forest resources for sustained yield where woodland products are sold, so long as the specified criteria are met.	To manage forest resources for sustained yield where woodland products are sold, so long as certain recreational opportunities, certain cultural resource values, certain scenic values, identified wildlife habitats, and watershed values are protected.



TABLE 2-5 (Continued)

Subactivity Code	Resource Management Program	Alternative A (No Action)	Alternative B	Alternative C	Alternative D <sup>a</sup>	Alternative E (Preferred Alternative)
4322	Grazing Management	To continue to manage rangelands to produce livestock forage and water to meet current demand.	To manage rangelands to produce the maximum amount of livestock forage within the potential of the vegetation resource, and water to meet future demand; and to manage identified areas to provide an ecological baseline for range studies.	To manage rangelands to allow for livestock use, so long as the P, SPM, and SPM ROS classes are maintained, wildlife habitat is improved, and watershed values are protected; and to manage identified areas to provide an ecological baseline for range studies.	To manage rangelands to allow for livestock use, so long as the specified criteria are met; and to manage identified areas to provide an ecological baseline for range studies.	To continue to manage rangelands to produce livestock forage and water to meet current demand, so long as certain primitive recreational opportunities and identified wildlife habitats are protected; and to manage identified areas to provide an ecological baseline for range studies.
4331	Cultural Resource Management	To continue to manage natural history, paleontological, and cultural resources so as to emphasize protection and preservation of special properties.	To manage surface disturbing actions so as to avoid adverse impacts to natural history, paleontological, and cultural resources as provided by law; and to manage for specific uses only where no conflicts occur with livestock use or minerals production.	To manage surface disturbing actions so as to avoid adverse impacts to natural history, paleontological, and cultural resources as provided by law; and to manage for public (recreational) use.	To provide for the maximum protection and preservation of natural history, paleontological, and cultural resources.	To manage surface disturbing actions so as to avoid adverse impacts to natural history, paleontological, and cultural resources as provided by law; and to manage cultural resources in identified areas for informational potential, public values, or conservation.
4332	Wilderness Management	To manage areas undergoing wilderness review under the IMP; and to manage designated wilderness areas to protect wilderness values.	To manage areas undergoing wilderness review under the IMP; and to manage designated wilderness areas to protect wilderness values.	To manage areas undergoing wilderness review under the IMP; and to manage designated wilderness areas to protect wilderness values.	To manage areas undergoing wilderness review under the IMP; and to manage designated wilderness areas to protect wilderness values.	To manage areas undergoing wilderness review under the IMP; and to manage designated wilderness areas to protect wilderness values.
4333	Recreation Resources Management	To continue present management of the existing SRMAs and San Juan Extensive RMA; and to main-	To continue present management of the existing developed recreation sites; to modify recreation man-	To develop additional recreation sites; to intensify recreation management of existing SRMAs; to designate	To continue present management of the existing developed recreation sites; to alter management of	To develop additional recreation sites; to alter management of existing SRMAs so as to protect certain

tain existing ORV closures in Grand Gulch and Dark Canyon Primitive Areas.

agement so as to allow maximum livestock and mineral uses in the remainder of SJRA; and to designate all of SJRA as open to ORV use unless use in a specific area is limited by protection of another resource value.

additional SRMAs; to manage all areas so as to maintain existing ROS classes; to designate all of SJRA as open, closed, or limited for ORV use, depending on existing ROS classes, or where use in a specific area is limited by protection of another resource value; and to recognize outstanding natural values in specific areas.

existing SRMAs; to designate additional SRMAs; to manage recreation so as to ensure that the specified criteria are met; to designate identified natural succession areas as closed to ORV use, and designate the remainder of the SJRA as open, closed, or limited for ORV use, where use in a specific area is limited by protection of another resource value; and to recognize outstanding natural values in specific areas.

recreational opportunities; to designate additional SRMAs; to manage certain areas to preserve ROS P class and protect ROS SPNM class; to designate all of SJRA as open, closed, or limited for ORV use, depending on certain existing ROS classes or where use in a specific area is limited by protection of another resource value; and to recognize critical environmental values in specific areas.

#### Visual Resources Management

To provide a systematic method to identify, evaluate, and manage visual resource values; and to minimize adverse visual impacts so as to protect the quality of scenic values on public lands.

To provide a systematic method to identify, evaluate, and manage visual resource values; and to minimize adverse visual impacts while allowing land use activities to occur.

To provide a systematic method to identify, evaluate, and manage visual resource values; and to minimize adverse visual impacts so as to maintain VRM classes.

To provide a systematic method to identify, evaluate, and manage visual resource values; to protect certain scenic values; and to minimize adverse visual impacts in other areas so as to ensure that the specified criteria are met.

To provide a systematic method to identify, evaluate, and manage visual resource values; to protect certain scenic values; and to minimize adverse visual impacts in other areas while allowing land use activities to occur.

4341

#### Soil, Water and Air Management

To maintain or improve soil productivity, water quality, watershed conditions, and air quality.

To maintain or improve soil productivity, water quality, watershed conditions, and air quality, only so long as livestock use and mineral development are not limited.

To maintain or improve soil productivity, water quality, and air quality, and to improve watershed conditions, so as to maintain ROS classes and improve wildlife habitat.

To maintain or improve soil productivity, water quality, watershed conditions, and air quality, so long as natural succession of plant species within identified natural succession areas is not limited.

To maintain or improve soil productivity, water quality, and air quality, and to improve watershed conditions, only so long as certain recreational opportunities, certain cultural resource values, certain scenic values, and identified wildlife habitats are protected.

TABLE 2-5 (Concluded)

Suoactivity Code	Resource Manage- ment Program	Alternative A (No Action)	Alternative B	Alternative C	Alternative D <sup>a</sup>	Alternative E (Preferred Alternative)
4342	Hazardous Waste Management	To identify sites that contain potentially hazardous wastes; and to develop mitigation for those sites.	To identify sites that contain potentially hazardous wastes; and to develop mitigation for those sites.	To identify sites that contain potentially hazardous wastes; and to develop mitigation for those sites.	To identify sites that contain potentially hazardous wastes; and to develop mitigation for those sites.	To identify sites that contain potentially hazardous wastes; and to develop mitigation for those sites.
4351	Habitat Management	To support big game populations and allow wildlife populations to increase to the extent possible, up to the limits imposed by other resource management programs.	To maintain current wildlife populations and alter management of wildlife habitat to provide for an increase in game species, only so long as livestock and mineral uses are not limited.	To alter management of wildlife habitats so as to maximize riparian and aquatic areas; to allow big game populations to approach prior stable numbers; and to maximize habitat for nongame species where possible.	To provide habitat for a diversity of wildlife species; and to protect native vegetation habitats within identified natural succession areas and in riparian and aquatic habitats outside these identified areas.	To provide habitat for a diversity of wildlife species and to alter management of wildlife habitats so as to protect certain riparian areas and crucial big game habitat areas, only so long as certain recreational opportunities, certain cultural resource values, and certain scenic values are protected.
4352	Endangered Species Management	To protect and conserve all officially listed and candidate plants and animals and their habitats, as provided by law.	To protect and conserve all officially listed and candidate plants and animals and their habitats, as provided by law.	To protect and conserve all officially listed and candidate plants and animals and their habitats, as provided by law, and to increase animal populations where opportunities exist.	To protect and conserve all officially listed and candidate plants and animals and their habitats, as provided by law, and to increase animal and plant populations where opportunities exist.	To protect and conserve all officially listed and candidate plants and animals and their habitats, as provided by law, and to increase animal and plant populations where opportunities exist.
4360	Fire Management	To suppress all wildfires; and to use prescribed fire to maintain existing seedings.	To suppress wildfires where necessary to protect life, property, and high-risk resource values; to conduct conditional suppression where necessary to maintain fire-dependent	To suppress wildfires where necessary to protect life, property, and high-risk resource values; to conduct conditional suppression where necessary to maintain ROS classes	To suppress wildfires where necessary to protect life, property, and high-risk resource values; to conduct conditional suppression in other areas; and to use prescribed fire to	To suppress wildfires where necessary to protect life, property, and high-risk resource values; to conduct conditional suppression where necessary to protect certain ROS P and

ecosystems; and to use prescribed fire to maintain existing and new seedings.	and fire-dependent ecosystems or to limit motorized suppression in certain ROS classes; and to use prescribed fire to maintain certain existing and new seedings.	maintain existing seedings outside the identified natural succession areas.	SPNM classes and fire-dependent ecosystems or to limit motorized suppression in certain areas; and to use prescribed fire to maintain existing and new seedings.
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<sup>a</sup>Specific criteria guide uses of the public lands and resources under this alternative. Within the entire SJRA, new surface disturbance would be limited to that which could be reclaimed within 5 years to match the initial conditions. Within identified natural succession areas, an additional criterion applies: new activities would be allowed only so long as natural succession of plant species could occur.

TABLE 2-6

## Special Management Designations, by Alternative

Program	Area/ (Resource Value)	Alternative A Designation Acres	Alternative B Designation Acres	Alternative C Designation Acres	Alternative D Designation Acres	Alternative E Designation Acres
4322	Bridger Jack Mesa (relict vegetation)	None..... 0	RNA..... 1,760	ACEC..... 5,290	RNA..... 5,290	ACEC..... 5,290
4322	Lavender Mesa (relict vegetation)	None..... 0	RNA..... 640	ACEC..... 640	RNA..... 640	ACEC..... 640
4331	Alkali Ridge (cultural)	None..... 0	None..... 0	ACEC..... 170,320	ACEC..... 170,320	ACEC..... 35,890
4331	Beef Basin (cultural and scenic)	None..... 0	None..... 0	None..... 0	ACEC..... 72,880	ACEC..... 13,870 (Butler Wash, scenic)
4331	Cedar Mesa (cultural and scenic)	None..... 0	None..... 0	None..... 0 (See ONAs)	ACEC..... 404,710	ACEC..... 323,760
4331	Grand Gulch (cultural)	None..... 0	None..... 0	ACEC..... 4,240	(See Cedar Mesa)	(See Cedar Mesa)
4331	Hovenweep (cultural)	None..... 0	None..... 0	None..... 0	ACEC..... 2,000	ACEC..... 1,500
4331	Moki-Red Canyon (cultural)	None..... 0	None..... 0	None..... 0	ACEC..... 71,020	None..... 0
4331	Nokai Dome (cultural)	None..... 0	None..... 0	None..... 0	ACEC..... 90,850	None..... 0
4331	Northern Abajo (cultural)	None..... 0	None..... 0	ACEC..... 65,450	ACEC..... 65,450	ACEC..... 1,770 (Shay Canyon)
4333	Arco Canyon (recreation)	None..... 0	None..... 0	None..... 0	ONA..... 4,200 (See Cedar Mesa)	(See Cedar Mesa)
4333	Beef Basin (scenic and cultural)	None..... 0	None..... 0	None..... 0	ACEC..... 72,880	ACEC..... 13,870 (Butler Wash, scenic)

4333	Cedar Mesa (scenic and cultural)	None..... 0	None..... 0	None..... 0 (See ONAs)	ACEC..... 404,710	ACEC..... 323,760
4333	Dark Canyon (recreation)	PA..... 62,040	None..... 0	ONA..... 68,100	ONA..... 68,100	ACEC..... 62,040
4333	Fish & Owl Canyons (recreation)	None..... 0	None..... 0	ONA..... 40,300	ONA..... 40,300 (See Cedar Mesa)	(See Cedar Mesa)
4333	Grand Gulch (recreation)	PA..... 37,810	None..... 0	ONA..... 69,500	ONA..... 69,500 (See Cedar Mesa)	(See Cedar Mesa)
4333	John's Canyon (recreation)	None..... 0	None..... 0	ONA..... 17,500	ONA..... 17,500 (See Cedar Mesa)	(See Cedar Mesa)
4333	Lime Canyon (recreation)	None..... 0	None..... 0	ONA..... 25,300	ONA..... 25,300 (See Cedar Mesa)	(See Cedar Mesa)
4333	Lockhart Basin (scenic)	None..... 0	None..... 0	ACEC..... 56,660	ACEC..... 56,660	ACEC..... 13,100 (Indian Creek)
4333	Mule Canyon (recreation)	None..... 0	None..... 0	ONA..... 6,000	ONA..... 6,000 (See Cedar Mesa)	(See Cedar Mesa)
4333	Road Canyon (recreation)	None..... 0	None..... 0	ONA..... 24,500	ONA..... 24,500 (See Cedar Mesa)	(See Cedar Mesa)
4333	Scenic Highway Corridor (scenic)	None..... 0	None..... 0	None..... 0	ACEC..... 60,220	ACEC..... 78,390
4333	Slickhorn Canyon (recreation)	None..... 0	None..... 0	ONA..... 25,800	ONA..... 25,800 (See Cedar Mesa)	(See Cedar Mesa)
4333	Valley of the Gods (scenic)	None..... 0	None..... 0	None..... 0	ACEC..... 38,360 (See Cedar Mesa)	(See Cedar Mesa)
4333	White Canyon (scenic)	None..... 0	None..... 0	None..... 0	ACEC..... 175,810	(See Scenic Highway Corridor)

KEY: RNA = research natural area; ACEC = area of critical environmental concern; PA = primitive area; ONA = outstanding natural area;

TABLE 2-7

**Alternative Management Actions, by Program**  
(All acreages rounded to the nearest 10 acres)

Subactivity Code	Resource Management Program	Alternative A (No Action)	Alternative B	Alternative C	Alternative D	Alternative E (Preferred Alternative)
4111	Oil and gas Management	Apply oil and gas lease categories: 1,777,830 ac. Category 1 (open with standard conditions): 891,310 ac. Category 2 (open with special conditions): 617,170 ac. Category 3 (no surface occupancy): 114,120 ac. Category 4 (no lease): 155,230 ac.	Apply oil and gas lease categories: 1,777,830 ac. Category 1 (open with standard conditions): 1,768,740 ac. Category 2 (open with special conditions): 6,540 ac. Category 3 (no surface occupancy): 2,550 ac. Category 4 (no lease): 0 ac.	Apply oil and gas lease categories: 1,777,830 ac. Category 1 (open with standard conditions): 383,560 ac. Category 2 (open with special conditions): 683,040 ac. Category 3 (no surface occupancy): 711,230 ac. Category 4 (no lease): 0 ac.	Apply oil and gas lease categories: 1,777,830 ac. Category 1 (open with standard conditions): 0 ac. Category 2 (open with special conditions): 461,670 ac. Category 3 (no surface occupancy): 241,270 ac. Category 4 (no lease): 1,074,890 ac.	Apply oil and gas lease categories: 1,777,830 ac. Category 1 (open with standard conditions): 481,150 ac. Category 2 (open with special conditions): 923,450 ac. Category 3 (no surface occupancy): 373,230 ac. Category 4 (no lease): 0 ac.
		Allow geophysical activities: standard conditions: 1,779,190 ac. special conditions: 0 ac.	Allow geophysical activities: standard conditions: 1,770,100 ac. special conditions: 9,090 ac.	Allow geophysical activities: standard conditions: 384,920 ac. special conditions: 1,394,270 ac.	Allow geophysical activities: standard conditions: 0 ac. special conditions: 1,779,190 ac.	Allow geophysical activities: standard conditions: 482,510 ac. special conditions: 1,296,680 ac.
4113	Geothermal Management	See management guidance common to all alternatives.				
4121	Coal Management	Do not designate coal lease areas or lease coal: 1,777,830 ac.	Do not designate coal lease areas or lease coal: 1,565,830 ac.	Do not designate coal lease areas or lease coal: 1,777,830 ac.	Do not designate coal lease areas or lease coal: 1,777,830 ac.	Do not designate coal lease areas or lease coal: 1,777,830 ac.

Allow coal exploration: standard conditions: 1,777,830 ac. special conditions: 0 ac. no surface disturbance: 0 ac.	Allow coal exploration: standard conditions: 1,768,740 ac. special conditions: 6,540 ac. no surface disturbance: 2,550 ac.	Allow coal exploration: standard conditions: 303,560 ac. special conditions: 683,040 ac. no surface disturbance: 711,230 ac.	Allow coal exploration: standard conditions: 0 ac. special conditions: 461,670 ac. no surface disturbance: 1,316,160 ac.	Allow coal exploration: standard conditions: 481,150 ac. special conditions: 923,450 ac. no surface disturbance: 373,230 ac.
Designate coal lease areas: 0 ac.	Approve coal exploration plans and underground portions of mining permit action plans: 212,000 ac.  standard conditions: 211,600 ac. special conditions: 400 ac.	Designate coal lease areas: 0 ac.	Designate coal lease areas: 0 ac.	Designate coal lease areas: 0 ac.

4122	Tar Sand Management	Apply CHL lease categories in White Canyon STSA: 7,980 ac. Category 1 (open with standard conditions): 3,080 ac. Category 2 (open with special conditions): 4,620 ac. Category 3 (no surface occupancy): 120 ac. Category 4 (no lease): 160 ac.	Apply CHL lease categories in White Canyon STSA: 7,980 ac. Category 1 (open with standard conditions): 7,980 ac. Category 2 (open with special conditions): 0 ac. Category 3 (no surface occupancy): 0 ac. Category 4 (no lease): 0 ac.	Apply CHL lease categories in White Canyon STSA: 7,980 ac. Category 1 (open with standard conditions): 2,010 ac. Category 2 (open with special conditions): 3,900 ac. Category 3 (no surface occupancy): 2,070 ac. Category 4 (no lease): 0 ac.	Apply CHL lease categories in White Canyon STSA: 7,980 ac. Category 1 (open with standard conditions): 0 ac. Category 2 (open with special conditions): 240 ac. Category 3 (no surface occupancy): 380 ac. Category 4 (no lease): 7,360 ac.	Apply CHL lease categories in White Canyon STSA: 7,980 ac. Category 1 (open with standard conditions): 500 ac. Category 2 (open with special conditions): 5,510 ac. Category 3 (no surface occupancy): 1,970 ac. Category 4 (no lease): 0 ac.
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4131	Mineral Materials Management	Allow mineral material disposal and development: 1,679,340 ac. standard conditions: 1,679,340 ac. special conditions: 0 ac. No disposal: 99,850 ac.	Allow mineral material disposal and development: 1,776,640 ac. standard conditions: 1,770,100 ac. special conditions: 6,540 ac. No disposal: 2,550 ac.	Allow mineral material disposal and development: 1,067,960 ac. standard conditions: 384,920 ac. special conditions: 683,040 ac. No disposal: 711,230 ac.	Allow mineral material disposal and development: 463,030 ac. standard conditions: 0 ac. special conditions: 463,030 ac. No disposal: 1,316,160 ac.	Allow mineral material disposal and development: 1,405,340 ac. standard conditions: 482,510 ac. special conditions: 922,830 ac. No disposal: 373,850 ac.
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TABLE 2-7 (Continued)

Subactivity Code	Resource Management Program	Alternative A (No Action)	Alternative B	Alternative C	Alternative D	Alternative E (Preferred Alternative)
4132	Mining Law Administration	Administer mining claim location: 1,777,830 ac. open to entry: 1,674,480 ac. not open to entry: 103,350 ac.	Administer mining claim location: 1,777,830 ac. open to entry: 1,776,190 ac. not open to entry: 1,640 ac.	Administer mining claim location: 1,777,830 ac. open to entry: 1,538,430 ac. not open to entry: 239,400 ac.	Administer mining claim location: 1,777,830 ac. open to entry: 710,260 ac. not open to entry: 1,067,570 ac.	Administer mining claim location: 1,777,830 ac. open to entry: 1,497,610 ac. not open to entry: 280,220 ac.
		Approve mining plans: 1,674,480 ac. standard conditions: 1,674,480 ac. special conditions: 0 ac.	Approve mining plans: 1,776,190 ac. standard conditions: 1,767,790 ac. special conditions: 8,400 ac.	Approve mining plans: 1,538,430 ac. standard conditions: 343,470 ac. special conditions: 1,194,960 ac.	Approve mining plans: 710,260 ac. standard conditions: 0 ac. special conditions: 710,260 ac.	Approve mining plans: 1,497,610 ac. standard conditions: 313,160 ac. special conditions: 1,184,450 ac.
4133	Nonenergy Leasable Minerals Management	Issue prospecting permits and subsequent leases: 1,777,830 ac. standard conditions: 1,777,830 ac. special conditions: 0 ac. no surface occupancy: 0 ac. closed to exploration and leasing: 0 ac.	Issue prospecting permits and subsequent leases: 1,777,830 ac. standard conditions: 1,768,740 ac. special conditions: 6,540 ac. no surface occupancy: 2,550 ac. closed to exploration and leasing: 0 ac.	Issue prospecting permits and subsequent leases: 1,777,830 ac. standard conditions: 383,560 ac. special conditions: 683,040 ac. no surface occupancy: 711,230 ac. closed to exploration and leasing: 0 ac.	Issue prospecting permits and subsequent leases: 702,940 ac. standard conditions: 0 ac. special conditions: 461,670 ac. no surface occupancy: 241,270 ac. closed to exploration and leasing: 1,074,890 ac.	Issue prospecting permits and subsequent leases: 1,777,830 ac. standard conditions: 481,150 ac. special conditions: 923,450 ac. no surface occupancy: 373,230 ac. closed to exploration and leasing: 0 ac.

4211	Rights-of-Way	Make lands available for rights-of-way: 1,779,190 ac. available in designated transportation and utility corridors: 0 ac. available outside of designated transportation and utility corridors: 1,679,340 ac. standard conditions: 1,679,340 ac. special conditions: 0 ac. avoidance areas: 0 ac. exclusion areas: 99,850 ac.	Make lands available for rights-of-way: 1,779,190 ac. available in designated transportation and utility corridors: 85,760 ac. available outside of designated transportation and utility corridors: 1,690,880 ac. standard conditions: 1,684,340 ac. special conditions: 6,540 ac. avoidance areas: 2,550 ac. exclusion areas: 0 ac.	Make lands available for rights-of-way: 1,779,190 ac. available in designated transportation and utility corridors: 85,760 ac. available outside of designated transportation and utility corridors: 982,200 ac. standard conditions: 299,160 ac. special conditions: 683,040 ac. avoidance areas: 512,460 ac. exclusion areas: 198,770 ac.	Make lands available for rights-of-way: 1,779,190 ac. available in designated transportation and utility corridors: 85,760 ac. available outside of designated transportation and utility corridors: 377,270 ac. standard conditions: 0 ac. special conditions: 377,270 ac. avoidance areas: 241,120 ac. exclusion areas: 1,075,040 ac.	Make lands available for rights-of-way: 1,779,190 ac. available in designated transportation and utility corridors: 85,760 ac. available outside of designated transportation and utility corridors: 1,318,840 ac. standard conditions: 395,390 ac. special conditions: 923,450 ac. avoidance areas: 88,140 ac. exclusion areas: 286,450 ac.
4212	Lands	Provide lands for disposal for community expansion or private use: 2,960 ac.	Provide lands for disposal for community expansion or private use: 4,270 ac.	Provide lands for disposal for community expansion or private use: 6,030 ac.	Provide lands for disposal for community expansion or private use: 2,870 ac.	Provide lands for disposal for community expansion or private use: 6,430 ac.
4220	Withdrawal Processing and Review	Request Secretarial withdrawals: 101,860 ac. on C&MU classifications: 92,130 ac. on acquired lands: 9,730 ac. on open lands: 0 ac.	Request Secretarial withdrawals: 150 ac. on C&MU classifications: 150 ac. on acquired lands: 0 ac. on open lands: 0 ac.	Request Secretarial withdrawals: 237,910 ac. on C&MU classifications: 92,130 ac. on acquired lands: 9,730 ac. on open lands: 136,050 ac.	Request Secretarial withdrawals: 1,066,080 ac. on C&MU classifications: 92,130 ac. on acquired lands: 9,730 ac. on open lands: 964,220 ac.	Request Secretarial withdrawals: 278,730 ac. on C&MU classifications: 92,130 ac. on acquired lands: 9,730 ac. on open lands: 176,870 ac.

TABLE 2-7 (Continued)

Subactivity Code	Resource Management Program	Alternative A (No Action)	Alternative B	Alternative C	Alternative D	Alternative E (Preferred Alternative)
4220	Withdrawal Processing and Review (Concluded)	Open lands to entry: 0 ac. terminate C&MU classifications: 0 ac. open acquired lands: 0 ac.	Open lands to entry: 101,700 ac. terminate C&MU classifications: 91,980 ac. open acquired lands: 9,730 ac.	Open lands to entry: 0 ac. terminate C&MU classifications: 0 ac. open acquired lands: 0 ac.	Open lands to entry: 0 ac. terminate C&MU classifications: 0 ac. open acquired lands: 0 ac.	Open lands to entry: 0 ac. terminate C&MU classifications: 0 ac. open acquired lands: 0 ac.
4311	Forest Management	Allow private dead fuelwood harvest: 1,505,910 ac.  standard conditions: 1,505,910 ac. special conditions: 0 ac.  Allow only limited onsite collection of dead fuelwood (for campfires): 273,130 ac.  Exclude from private dead fuelwood harvest: 150 ac.	Allow private dead fuelwood harvest on designated sites: 1,776,640 ac.  standard conditions: 1,770,100 ac. special conditions: 6,540 ac.  Allow only limited onsite collection of dead fuelwood (for campfires): 2,400 ac.  Exclude from private dead fuelwood harvest: 150 ac.	Allow private dead fuelwood harvest on designated sites: 1,025,360 ac.  standard conditions: 384,920 ac. special conditions: 640,440 ac.  Allow only limited onsite collection of dead fuelwood (for campfires): 753,580 ac.  Exclude from private dead fuelwood harvest: 250 ac.	Allow private dead fuelwood harvest on designated sites: 374,420 ac.  standard conditions: 0 ac. special conditions: 374,420 ac.  Allow only limited onsite collection of dead fuelwood (for campfires): 1,404,620 ac.  Exclude from private dead fuelwood harvest: 150 ac.	Allow private dead fuelwood harvest on designated sites: 1,400,920 ac.  standard conditions: 482,510 ac. special conditions: 918,410 ac.  Allow only limited onsite collection of dead fuelwood (for campfires): 376,520 ac.  Exclude from private dead fuelwood harvest: 1,750 ac.
		Allow private and com- mercial use of woodland products on designated areas or other areas if designated: commercial use, dead fuelwood: 1,506,060 ac. all other private and commercial use: 1,679,340 ac.	Allow private and com- mercial use of woodland products on designated sites: 1,776,640 ac. standard conditions: 1,770,100 ac. special conditions: 6,540 ac.	Allow private and com- mercial use of woodland products on designated sites: 736,090 ac. standard conditions: 384,920 ac. special conditions: 351,170 ac.	Allow private and com- mercial use of woodland products on designated sites: 374,420 ac. standard conditions: 0 ac. special conditions: 374,420 ac.	Allow private and com- mercial use of woodland products on designated sites: 1,400,920 ac. standard conditions: 482,510 ac. special conditions: 918,410 ac.

Exclude from harvest: commercial use, dead fuelwood: 273,130 ac. all other private and commercial use: 99,850 ac.	Exclude from woodland products use: 2,550 ac.	Exclude from woodland products use: 1,043,100 ac.	Exclude from woodland products use: 1,404,770 ac.	Exclude from woodland products use: 378,270 ac.
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4312 Forest Development See management guidance common to all alternatives.

4322	Grazing Management	License cattle use on 69 allotments and sheep use on 1 allotment.	License cattle use on 91 allotments and sheep use on 1 allotment.	License cattle use on 69 allotments and sheep use on 1 allotment.	License cattle use on 69 allotments and sheep use on 1 allotment.	License cattle use on 69 allotments and sheep use on 1 allotment.
		grazing allotments: 70 2,071,450 ac. public lands 1,758,690 ac. Glen Canyon NRA 312,660 ac. Hovenweep NM 100 ac. allotted to wildlife: 17,300 ac. unallotted: 3,200 ac.	grazing allotments: 92 2,091,950 ac. public lands 1,779,190 ac. Glen Canyon NRA 312,660 ac. Hovenweep NM 100 ac. allotted to wildlife: 0 ac. unallotted: 0 ac.	grazing allotments: 70 2,071,450 ac. public lands 1,758,690 ac. Glen Canyon NRA 312,660 ac. Hovenweep NM 100 ac. allotted to wildlife: 17,300 ac. unallotted: 3,200 ac.	grazing allotments: 70 2,071,450 ac. public lands 1,758,690 ac. Glen Canyon NRA 312,660 ac. Hovenweep NM 100 ac. allotted to wildlife: 17,300 ac. unallotted: 3,200 ac.	grazing allotments: 70 2,071,450 ac. public lands 1,758,690 ac. Glen Canyon NRA 312,660 ac. Hovenweep NM 100 ac. allotted to wildlife: 17,300 ac. unallotted: 3,200 ac.
		Exclude livestock use: 37,720 ac. allotments affected: 2 AUMs affected: 0	Exclude livestock use: 2,550 ac. allotments affected: 6 AUMs affected: 0	Exclude livestock use: 75,560 ac. allotments affected: 24 AUMs affected: 760	Exclude livestock use: 11,760 ac. allotments affected: 21 AUMs affected: 600	Exclude livestock use: 138,080 ac. allotments affected: 24 AUMs affected: 260
		License use: 54,974 AUMs 2,033,630 ac. at total preference: 0 AUMs 0 ac. at past 5 years average licensed use: 54,974 AUMs 2,033,630 ac.	License use: 97,688 AUMs 2,089,300 ac. at total preference: 97,688 AUMs 2,089,300 ac. at past 5 years average licensed use: 0 AUMs 0 ac.	License use: 42,944 AUMs 1,995,790 ac. at total preference: 0 AUMs 0 ac. at past 5 years average licensed use: 33,382 AUMs 1,028,250 ac.	License use: 36,978 AUMs 2,059,590 ac. at total preference: 0 AUMs 0 ac. at past 5 years average licensed use: 31,771 AUMs 702,870 ac.	License use: 55,344 AUMs 1,933,230 ac. at total preference: 0 AUMs 0 ac. at past 5 years average licensed use: 55,344 AUMs 1,933,230 ac.

TABLE 2-7 (Continued)

Subactivity Code	Resource Management Program	Alternative A (No Action)	Alternative B	Alternative C	Alternative D	Alternative E (Preferred Alternative)
4322	Grazing Management (Concluded)	at 50% of past 5 years average licensed use: 0 AUMs 0 ac. at 25% of past 5 years average licensed use: 0 AUMs 0 ac.	at 50% of past 5 years average licensed use: 0 AUMs 0 ac. at 25% of past 5 years average licensed use: 0 AUMs 0 ac.	at 50% of past 5 years average licensed use: 9,386 AUMs 780,410 ac. at 25% of past 5 years average licensed use: 936 AUMs 187,130 ac.	at 50% of past 5 years average licensed use: 0 AUMs 0 ac. at 25% of past 5 years average licensed use: 5,807 AUMs 1,356,720 ac.	at 50% of past 5 years average licensed use: 0 AUMs 0 ac. at 25% of past 5 years average licensed use: 0 AUMs 0 ac.
		Allow present seasons of use:	Allow season of use:	Allow seasons of use:	Allow seasons of use:	Allow seasons of use:
		fall/winter: on 2 allotments 5,550 ac.	fall/winter: on 6 allotments 11,200 ac.	fall/winter: on 14 allotments 227,020 ac.	fall/winter: on 14 allotments 227,020 ac.	fall/winter: on 6 allotments 11,200 ac.
		fall/winter/spring: on 40 allotments 1,735,870 ac.	fall/winter/spring: on 40 allotments 1,780,570 ac.	fall/winter/spring: on 28 allotments 1,476,560 ac.	fall/winter/spring: on 28 allotments 1,540,360 ac.	fall/winter/spring: on 36 allotments 1,629,820 ac.
		summer: on 24 allotments 60,400 ac.	summer: on 42 allotments 65,720 ac.	summer: on 25 allotments 62,990 ac.	summer: on 25 allotments 62,990 ac.	summer: on 24 allotments 60,400 ac.
		yearlong: on 4 allotments 231,810 ac.	yearlong: on 4 allotments 231,810 ac.	yearlong: on 3 allotments 229,220 ac.	yearlong: on 3 allotments 229,220 ac.	yearlong: on 4 allotments 231,810 ac.
		Implement 9 existing AMPs: 1,249,260 ac.	Implement 9 existing AMPs: 1,282,190 ac.	Modify and implement 9 existing AMPs: 1,216,110 ac.	Modify and implement 9 existing AMPs: 1,273,880 ac.	Modify and implement 9 existing AMPs: 1,148,800 ac.
		Develop additional AMPs: 0 plans 0 ac.	Develop and implement 23 additional AMPs: 767,960 ac.	Develop and implement 22 additional AMPs: 690,000 ac.	Develop and implement 17 additional AMPs: 281,030 ac.	Develop and implement 21 additional AMPs: 698,060 ac.
		Implement land treatments (in conjunction with 4341). Maintain existing treatments on 27 allotments: 57,000 ac.	Implement land treatments (in conjunction with 4341). Maintain existing treatments on 27 allotments: 57,000 ac.	Implement land treatments (in conjunction with 4341). Maintain existing treatments on 27 allotments: 57,000 ac.	Implement land treatments (in conjunction with 4341). Maintain existing treatments outside of identified areas on 22 allotments: 28,000 ac.	Implement land treatments (in conjunction with 4341). Maintain existing treatments on 27 allotments: 57,000 ac.

Abandon existing land treatments on 0 allotments: 0 ac.	Abandon existing land treatments on 0 allotments: 0 ac.	Abandon existing land treatments on 0 allotments: 0 ac.	Abandon existing land treatments on 9 allotments: 29,000 ac.	Abandon existing land treatments on 0 allotments: 0 ac.
Implement new land treatments identified in existing AMPs on 6 allotments: 21,000 ac.	Implement new land treatments on 24 allotments, within area with potential for treatment: 262,700 ac.	Implement new land treatments on 23 allotments, within area with potential for treatment: 115,000 ac.	Implement new land treatments on 0 allotments, within area with potential for treatment: 0 ac.	Implement new land treatments on 24 allotments, within area with potential for treatment: 232,120 ac.

Designate special management areas: 0 ac.	Designate 2 RNAs: 2,400 ac. Bridger Jack Mesa RNA 1,760 ac. Lavender Mesa RNA 640 ac.	Designate 2 ACECs: 5,930 ac. Bridger Jack Mesa ACEC 5,290 ac. Lavender Mesa ACEC 640 ac.	Designate 2 RNAs: 5,930 ac. Bridger Jack Mesa RNA 5,290 ac. Lavender Mesa RNA 640 ac.	Designate 2 ACECs: 5,930 ac. Bridger Jack Mesa ACEC 5,290 ac. Lavender Mesa ACEC 640 ac.
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4331	Natural History/Cultural Resources Management	Nominate sites for designation to the National Register: 0 ac.	Nominate sites for designation to the National Register: 0 ac.	Nominate 5 cultural properties and 6 archaeological districts to the National Register: 402,130 ac. cultural properties: 10 ac. archaeologic districts: 402,120 ac.	Nominate 5 cultural properties and 6 archaeological districts to the National Register: 402,130 ac. cultural properties: 10 ac. archaeologic districts: 402,120 ac.	Nominate 3 cultural properties and 3 archaeological districts to the National Register: 357,290 ac. cultural properties: 10 ac. archaeologic districts: 357,280 ac.
		Develop and implement CRMPs: 0 ac.	Develop and implement CRMPs: 0 ac.	Develop and implement CRMPs for 1 NHL and 4 archaeological districts: 5 CRMPs NHL: 391,880 ac. 2,340 ac. archaeologic districts: 389,540 ac.	Develop and implement CRMP for 1 NHL and 4 archaeological districts: 5 CRMPs NHL: 391,880 ac. 2,340 ac. archaeologic districts: 389,540 ac.	Develop and implement CRMPs for 1 NHL and 2 archaeological districts: 3 CRMPs NHL: 357,010 ac. 2,340 ac. archaeologic districts: 354,670 ac.

TABLE 2-7 (Continued)

Subactivity Code	Resource Management Program	Alternative A (No Action)	Alternative B	Alternative C	Alternative D	Alternative E (Preferred Alternative)
4331	Natural History/Cultural Resources Management (Concluded)	Designate ACECs: 0 ac.	Designate ACECs: 0 ac.	Designate 3 ACECs: 240,010 ac. Alkali Ridge ACEC: 170,320 ac. Grand Gulch ACEC 4,240 ac. North Abajo ACEC 65,450 ac.	Designate 7 ACECs: 877,230 ac. Alkali Ridge ACEC: 170,320 ac. Beef Basin ACEC 72,880 ac. Cedar Mesa ACEC 404,710 ac. Hovenweep ACEC 2,000 ac. Moki-Red Canyon ACEC 71,020 ac. Nokai Dome ACEC 90,850 ac. North Abajo ACEC 65,450 ac.	Designate 4 ACECs: 362,920 ac. Alkali Ridge ACEC 35,890 ac. Cedar Mesa ACEC 323,760 ac. Hovenweep ACEC 1,500 ac. Shay Canyon ACEC 1,770 ac.
4332	Wilderness Management	See management guidance common to all alternatives.				
4333	Recreation Management	Continue present management of 3 existing SRMAs and of primitive areas: 462,140 ac.	Modify management of 3 existing SRMAs; continue existing management of primitive areas: 462,140 ac.	Modify management of 3 existing SRMAs; continue existing management of primitive areas: 462,140 ac.	Modify management of 3 existing SRMAs; continue existing management of primitive areas: 462,140 ac.	Modify management of 3 existing SRMAs; continue existing management of primitive areas: 462,140 ac.
		Designate additional SRMAs: 0 ac.	Designate additional SRMAs: 0 ac.	Designate 3 additional SRMAs: 151,750 ac. Beef Basin SRMA 66,450 ac. Indian Creek SRMA 80,000 ac. Montezuma Creek SRMA 5,300 ac.	Designate 3 additional SRMAs: 151,750 ac. Beef Basin SRMA 66,450 ac. Indian Creek SRMA 80,000 ac. Montezuma Creek SRMA 5,300 ac.	Designate 2 additional SRMAs: 148,370 ac. Canyon Basins SRMA 146,450 ac. Pearson Canyon SRMA 1,920 ac.

Develop management plans for SRMAs. 3 plans 462,140 ac.	Develop management plans for SRMAs. 3 plans 462,140 ac.	Develop management plans for SRMAs. 6 plans 613,890 ac.	Develop management plans for SRMAs. 6 plans 613,890 ac.	Develop management plans for SRMAs. 4 plans 616,410 ac.
Continue present management of existing extensive RMA: 1,317,050 ac.	Provide no recreation management for existing extensive RMA: 1,317,050 ac.	Modify management of extensive RMA to include all area not in an SRMA: 1,165,300 ac.	Modify management of extensive RMA to include all area not in an SRMA: 1,165,300 ac.	Modify management of extensive RMA to include all area not in an SRMA: 1,162,780 ac.
Continue present management of developed recreation sites: 150 ac.	Modify management of developed recreation sites to protect facilities: 150 ac.	Intensify management of developed recreation sites to protect facilities: 150 ac.	Modify management of developed recreation sites to protect facilities: 150 ac.	Intensify management of developed recreation sites to protect facilities: 150 ac.
Develop or improve recreation sites: 0 sites 0 ac.	Develop or improve recreation sites: 0 sites 0 ac.	Develop or improve recreation sites. 7 sites 100 ac.	Develop or improve recreation sites. 0 ac.	Develop or improve recreation sites. 7 sites 100 ac.
Designate ONAs: 0 ac.	Designate ONAs: 0 ac.	Designate 8 ONAs: 277,000 ac. Dark Canyon 68,100 ac. Fish and Owl Canyons 40,300 ac. Grand Gulch 69,500 ac. Johns Canyon 17,500 ac. Lime Canyon 25,300 ac. Mule Canyon 6,000 ac. Road Canyon 24,500 ac. Slickhorn Canyon 25,800 ac.	Designate 9 ONAs: 281,200 ac. Arcn Canyon 4,200 ac. Dark Canyon 68,100 ac. Fish and Owl Canyons 40,300 ac. Grand Gulch 69,500 ac. Johns Canyon 17,500 ac. Lime Canyon 25,300 ac. Mule Canyon 6,000 ac. Road Canyon 24,500 ac. Slickhorn Canyon 25,800 ac.	Designate ONAs: 0 ac.



TABLE 2-7 (Continued)

Subactivity Code	Resource Management Program	Alternative A (No Action)	Alternative B	Alternative C	Alternative D	Alternative E (Preferred Alternative)
4333	Recreation Management (Concluded)	Designate ORV use areas: 1,779,190 ac. open to ORV use: 1,679,340 ac. limited use with seasonal conditions: 0 ac.	Designate ORV use areas: 1,779,190 ac. open to ORV use: 1,776,640 ac. limited use with seasonal conditions: 0 ac.	Designate ORV use areas: 1,779,190 ac. open to ORV use: 484,320 ac. limited use with seasonal restrictions: 540,260 ac. Seasonal restrictions only: 193,390 ac. Seasonal and other restrictions: 346,870 ac. limited to existing roads and trails: 0 ac. limited to designated roads and trails: 0 ac. closed to ORV use: 99,850 ac.	Designate ORV use areas: 1,779,190 ac. open to ORV use: 367,420 ac. limited use with seasonal restrictions: 0 ac. Seasonal restrictions only: 328,760 ac. Seasonal and other restrictions: 211,500 ac. limited to existing roads and trails: 265,730 ac. limited to designated roads and trails: 211,010 ac. closed to ORV use: 354,820 ac.	Designate ORV use areas: 1,779,190 ac. open to ORV use: 611,310 ac. limited use with seasonal restrictions: 540,260 ac. Seasonal restrictions only: 328,760 ac. Seasonal and other restrictions: 211,500 ac. limited to existing roads and trails: 265,730 ac. limited to designated roads and trails: 211,010 ac. closed to ORV use: 354,820 ac.
		Designate ACECs: 0 ac.	Designate ACECs: 0 ac.	Designate ACECs: 0 ac.	Designate ACECs: 0 ac.	Designate 1 ACEC Dark Canyon 62,040 ac.

4333	Visual Resources Management	Designate ACECs: 0 ac.	Designate ACECs: 0 ac.	Designate 1 ACEC: 56,660 ac. Lockhart Basin ACEC 56,660 ac.	Designate 6 ACECs: 725,960 ac. Beef Basin ACEC 72,880 ac. Cedar Mesa ACEC 404,710 ac. Lockhart Basin ACEC 56,660 ac. Scenic Highway Corridor ACEC 60,220 ac. Valley of the Gods ACEC 38,360 ac. White Canyon ACEC 175,810 ac.	Designate 4 ACECs: 407,740 ac. Butler Wash ACEC 13,870 ac. Cedar Mesa ACEC 323,760 ac. Indian Creek ACEC 13,100 ac. Scenic Highway Corridor ACEC 78,390 ac.
4341	Soil, Water, and Air Management	Locate new watershed control structures where needed: available: 1,779,190 ac. excluded: 0 ac.	Locate new watershed control structures where needed: available: 1,776,790 ac. excluded: 2,400 ac.	Locate new watershed control structures where needed: available: 1,574,740 ac. excluded: 204,450 ac.	Locate new watershed control structures where needed: available: 704,300 ac. excluded: 1,074,890 ac.	Locate new watershed control structures where needed: available: 1,487,770 ac. excluded: 291,420 ac.
		Implement land treatments (see 4322).	Implement land treatments (see 4322).	Implement land treatments (see 4322).	Implement land treatments (see 4322).	Implement land treatments (see 4322).
4342	Hazardous Waste Management	See management guidance common to all alternatives				
4351	Habitat Management	Implement 3 existing HMPs: 890,560 ac.	Modify 3 existing HMPs: 890,560 ac.	Modify 3 existing HMPs: 890,560 ac.	Modify 3 existing HMPs: 890,560 ac.	Implement 3 existing HMPs: 890,560 ac.
4352	Endangered Species Management	See management common to all alternatives				

TABLE 2-7 (Concluded)

Subactivity Code	Resource Management Program	Alternative A (No Action)	Alternative B	Alternative C	Alternative D	Alternative E (Preferred Alternative)
4360	Fire Management	Implement a fire management policy: 1,779,190 ac. suppression: 1,724,790 ac. conditional suppression: 0 ac. prescribed fire: 54,400 ac.	Implement a fire management policy: 1,779,190 ac. suppression: 264,750 ac. conditional suppression: 1,324,190 ac. prescribed fire: 190,250 ac.	Implement a fire management policy: 1,779,190 ac. suppression: 683,410 ac. conditional suppression: 1,036,280 ac. prescribed fire: 59,500 ac.	Implement a fire management policy: 1,779,190 ac. suppression: 264,750 ac. conditional suppression: 1,486,440 ac. prescribed fire: 28,000 ac.	Implement a fire management policy: 1,779,190 ac. suppression: 266,060 ac. conditional suppression: 1,453,530 ac. prescribed fire: 59,600 ac.



TABLE 2-8

## Off-Road Vehicle Designations, by Alternative

	Alternative A (No Action) (acres)	Alternative B (acres)	Alternative C (acres)	Alternative D (acres)	Alternative E (Preferred) (acres)
<u>Open to ORV use</u>	1,679,340	1,776,640	484,320	367,420	611,310
Limited use with seasonal restrictions	0	0	540,260	0	540,260
Seasonal restrictions only	(0)	(0)	(193,390)	(0)	(328,760)
Seasonal restrictions with other limitations	(0)	(0)	(346,870)	(0)	(211,500)
To protect crucial wildlife habitat:					
-bighorn sheep lambing areas (Apr. 4 to Jul. 15)					
and rutting areas (Oct. 15 to Dec. 31)	(0)	(0)	(329,750)	(0)	(329,750)
-antelope fawning area (May 15 to June 30)	(0)	(0)	(12,960)	(0)	(12,960)
-deer winter range (Dec. 15 to Apr. 30)	(0)	(0)	(197,550)	(0)	(197,550)
<u>Limited to Existing Roads and Trails</u>	0	0	348,750	157,410	265,730
To protect watershed and wildlife values:					
-floodplains, riparian/aquatic areas	(0)	(0)	(6,000)	(6,000)	(6,000)
-sensitive soils	(0)	(0)	(195,000)	(195,000)	(0)
To protect cultural, scenic, and recreational values:					
-Alkali Ridge ACEC	(0)	(0)	(170,320)	(0)	(35,890)
-Lockhart Basin ACEC	(0)	(0)	(56,660)	(56,660)	(0)
-North Abajo ACEC	(0)	(0)	(65,450)	(0)	(0)
-Shay Canyon ACEC	(0)	(0)	(0)	(0)	(1,770)
-SPNM-class areas	(0)	(0)	(0)	(0)	(505,700)
-road corridors	(0)	(0)	(0)	(0)	(12,300)

<u>Limited to Designated Roads and Trails</u>	0	150	250	179,470	211,010
To protect cultural, scenic, and recreational values:					
-Alkali Ridge ACEC	(0)	(0)	(0)	(170,320)	(0)
-Cedar Mesa ACEC (partial)	(0)	(0)	(0)	(0)	(208,970)
-Hovenweep ACEC	(0)	(0)	(0)	(2,000)	(1,500)
-Moki-Red Canyon ACEC	(0)	(0)	(0)	(7,000)	(0)
-Pearson Canyon SRMA	(0)	(0)	(0)	(0)	(1,920)
-SPNM-class areas in SRMAs	(0)	(0)	(0)	(0)	(49,590)
-developed recreation sites	(0)	(150)	(250)	(150)	(250)
<u>Closed to ORV Use</u>	99,850	2,400	752,480	1,074,890	354,820
To protect vegetation values:					
-Bridger Jack Mesa	(0)	(1,760)	(5,290)	(5,290)	(5,290)
-Lavender Mesa	(0)	(640)	(640)	(640)	(640)
-Identified natural succession areas	(0)	(0)	(0)	(1,054,870)	(0)
To protect wildlife values:					
-five identified mesa tops (bighorn sheep)	(0)	(0)	(56,740)	(0)	(0)
To protect cultural, scenic, and recreational values:					
-Existing primitive areas	(99,850)	(0)	(0)	(0)	(0)
-Beef Basin ACEC	(0)	(0)	(0)	(72,880)	(0)
-Butler Wash ACEC	(0)	(0)	(0)	(0)	(13,870)
-Cedar Mesa ACEC	(0)	(0)	(0)	(404,710)	(114,790)
-Dark Canyon ACEC	(0)	(0)	(0)	(0)	(62,040)
-Grand Gulch ACEC	(0)	(0)	(4,240)	(0)	(0)
-Indian Creek ACEC	(0)	(0)	(0)	(0)	(13,100)
-Moki-Red Canyon ACEC	(0)	(0)	(0)	(64,020)	(0)
-Nokai Dome ACEC	(0)	(0)	(0)	(90,850)	(0)
-North Abajo ACEC	(0)	(0)	(0)	(65,450)	(0)
-Scenic Highway Corridor ACEC	(0)	(0)	(0)	(60,220)	(78,390)
-Valley of the Gods ACEC	(0)	(0)	(0)	(38,360)	(0)
-White Canyon ACEC	(0)	(0)	(0)	(175,810)	(0)
-P-class areas	(0)	(0)	(198,520)	(0)	(196,040)
-SPNM-class areas	(0)	(0)	(512,460)	(0)	(0)
-San Juan River SRMA SPM-class area	(0)	(0)	(0)	(0)	(9,830)
-RN-class area on Mancos Mesa	(0)	(0)	(0)	(0)	(9,430)

NOTE: Acreages in parentheses may not be additive because of overlap.

TABLE 2-8A

## Fire Management by Alternative

Fire Management Category	Alternative A (acres)	Alternative B (acres)	Alternative C (acres)	Alternative D (acres)	Alternative E (acres)
<u>Suppression</u>	1,724,790	264,750	683,410	264,750	266,060
To comply with policy	(1,779,190)				
To protect high resource values		(264,600)	(264,600)	(264,600)	(264,600)
Developed recreation sites		(150)	(250)	(150)	(250)
Aquatic/riparian habitat in SPNM- and SPM-class areas			(6,000)		<sup>a</sup> (1,210)
P class			(2,480)		
RN class			(651,120)		
R class			(14,720)		
U class			(320)		
<u>Conditional Suppression</u>	0	1,324,190	1,036,280	1,486,440	1,453,530
To maintain:					
Forage species		(1,321,790)			
Identified natural succession areas				(1,054,870)	
Fire-dependent vegetation				(431,570)	
Beef Basin ACEC				(72,880)	
Bridger Jack Mesa ACEC		(1,760)	(5,200)		(5,290)
Butler Wash ACEC					(13,870)
Cedar Mesa ACEC				(404,710)	(323,760)
Dark Canyon ACEC					(62,040)
Hovenweep ACEC					(1,500)
Indian Creek ACEC					(13,100)
Lavender Mesa ACEC		(640)	(640)		(640)
Lockhart Basin ACEC			(56,660)		
Moki-Red Canyon ACEC				(71,020)	
Nokai Dome ACEC				(90,850)	
Valley of the Gods ACEC				(38,360)	
White Canyon ACEC				(175,810)	
P-class (except as above)			(196,040)		(196,040)
SPNM-class (except as above)			(512,310)		
SPM-class (except as above)			(327,290)		
RN-class			(640)		
Scenic Highway Corridor ACEC				(60,220)	(81,890)
Resource values (remainder of SJRA)					(751,940)

<u>Fire Use (Prescribed Fire)</u>	54,400	190,250	59,500	28,000	59,600
To maintain:					
Existing seedings, where feasible	(53,300)	(53,300)	(53,300)	(28,000)	(53,300)
New seedings, where feasible	(1,100)	(136,950)	(6,200)		(6,300)

NOTE: Acreages in parentheses may not be additive because of overlap.

<sup>a</sup>Except P-class.



TABLE 2-9

## Alternative Planning Decisions, by Planning Issue

PLANNING ISSUE: Livestock Management

DECISIONS NEEDED: What stocking levels and periods of use should be achieved on rangelands managed by the SJRA (pending completion of monitoring studies)?

<u>Alternative A</u>	<u>Alternative B</u>	<u>Alternative C<sup>a</sup></u>	<u>Alternative D<sup>b</sup></u>	<u>Alternative E</u>
Areal allotments of forage: - certain areas to deer; - isolated tracts unallotted; - remainder of SJRA to livestock.	Areal allotments of forage: - entire SJRA to livestock.	Areal allotments of forage: - certain areas to deer; - isolated tracts unallotted; - remainder of SJRA to livestock.	Areal allotments of forage: - certain areas to deer; - isolated tracts unallotted; - remainder of SJRA to livestock.	Areal allotments of forage: - certain areas to deer; - isolated tracts unallotted; - remainder of SJRA to livestock.
Licensed grazing use level: - past 5 years average licensed use.	Licensed grazing use level: - total preference.	Licensed grazing use level: - 25% of past 5 years average in P-class areas; - 50% of past 5 years average in SPNM and SPM areas; - past 5 years average licensed use elsewhere.	Licensed grazing use level: - 25% of past 5 years average in identified natural succession areas and riparian areas; - at past 5 years average use elsewhere.	Licensed grazing use level: - past 5 years average licensed use.
Season of use: - continue present management.	Season of use: - eliminate spring grazing on certain allotments.	Season of use: - eliminate spring grazing on certain allotments.	Season of use: - eliminate spring grazing on certain allotments.	Season of use: - eliminate spring grazing on certain allotments.
Livestock exclusions: - Wingate Mesa; - Grand Gulch Primitive Area (partial); - Pearson Canyon.	Livestock exclusions: - Grand Gulch Primitive Area (partial); - Bridger Jack and Lavender Mesa RNAs; - developed recreation sites.	Livestock exclusions: - five identified mesa tops, including Wingate Mesa; - riparian areas; - Bridger Jack and Lavender Mesa ACECs; - developed recreation sites.	Livestock exclusions: - riparian areas; - Bridger Jack and Lavender Mesa RNAs; - Grand Gulch ACEC; - developed recreation sites.	Livestock exclusions: - five identified mesa tops, including Wingate Mesa; - Grand Gulch, in Cedar Mesa ACEC (partial); - Bridger Jack and Lavender Mesa ACECs; - Dark Canyon ACEC; - Pearson Canyon SRMA; - developed recreation sites.

PLANNING ISSUE: Wilderness Study Area Management

DECISIONS NEEDED: How should areas within the SJRA now designated as ISAs and WSAs be managed if not designated as wilderness by Congress?

<u>Alternative A</u>	<u>Alternative B</u>	<u>Alternative C<sup>a</sup></u>	<u>Alternative D<sup>b</sup></u>	<u>Alternative E</u>
<u>Dark Canyon ISA Complex</u>	<u>Dark Canyon ISA Complex</u>	<u>Dark Canyon ISA Complex</u>	<u>Dark Canyon ISA Complex</u>	<u>Dark Canyon ISA Complex</u>
		ROS classes present: P, SPNM, and SPM.	WSA is within an identified natural succession area.	ROS classes present: P, SPNM, and SPM.
Special designations: Primitive Area covering ISA.	Special designations: none.	Special designations: ONA covering complex.	Special designations: ONA covering complex.	Special designations: ACEC covering ISA.
Minerals: complex closed to leasing; ISA segregated from entry; remainder open to entry.	Minerals: complex open to minerals leasing, sales, and entry with provisions to protect riparian areas.	Minerals: P and SPNM areas stipulated no surface occupancy for leasing and sales; P areas segregated from entry; remainder open.	Minerals: complex closed to minerals leasing and sales; segregated from mineral entry.	Minerals: ACEC stipulated no surface occupancy for leasing, closed to sales, and segregated from entry; remainder open with provisions to protect crucial wildlife habitats.
Grazing: ISA not grazed; remainder grazed at past 5 years average licensed use.	Grazing: complex grazed at total preference.	Grazing: P areas at 25% of past 5 years average licensed use, SPNM areas at 50%; remainder grazed at past 5 years average.	Grazing: complex at 25% of past 5 years average licensed use.	Grazing: excluded from ACEC; remainder grazed at past 5 years average licensed use.
Recreation: ISA managed as an SRMA for primitive recreation; closed to ORV use; remainder open to ORV use.	Recreation: ISA managed as an SRMA; remainder open to ORV use.	Recreation: ISA managed as an SRMA; P and SPNM areas closed to ORV use; remainder open to ORV use.	Recreation: ISA managed as an SRMA; complex closed to ORV use.	Recreation: ISA managed as part of Canyon Basins SRMA; ACEC and P areas closed to ORV use; SPNM areas limited to existing roads and trails; remainder open to ORV use.

TABLE 2-9 (Continued)

PLANNING ISSUE: Wilderness Study Area Management

DECISIONS NEEDED: How should areas within the SJRA now designated as ISAs and WSAs be managed if not designated as wilderness by Congress?

<u>Alternative A</u>	<u>Alternative B</u>	<u>Alternative C<sup>a</sup></u>	<u>Alternative D<sup>b</sup></u>	<u>Alternative E</u>
<u>Grand Gulch ISA Complex</u>	<u>Grand Gulch ISA Complex</u>	<u>Grand Gulch ISA Complex</u>	<u>Grand Gulch ISA Complex</u>	<u>Grand Gulch ISA Complex</u>
		ROS classes present: P, SPM, SPM, and RN.	WSA is within an identified natural succession area.	ROS classes present: P, SPM, SPM, and RN.
Special designations: Primitive Area covering ISA.	Special designations: none.	Special designations: 3 ONAs covering most of complex; ACEC covering National Register archaeologic district.	Special designations: 3 ONAs covering most of complex; within larger Cedar Mesa ACEC covering ISA and complex.	Special designations: within larger Cedar Mesa ACEC covering ISA and complex.
Minerals: complex closed to leasing; ISA segregated from entry; remainder open to entry.	Minerals: complex open to leasing, sales, and entry with provisions to protect riparian areas.	Minerals: P and SPM areas stipulated no surface occupancy for leasing and sales; P areas segregated from entry; remainder open with provisions to protect riparian areas.	Minerals: complex closed to leasing and sales; segregated from entry.	Minerals: P areas stipulated no surface occupancy for leasing and sales; segregated from mineral entry; remainder open with special conditions to protect ACEC and riparian areas.
Grazing: excluded from part of ISA; remainder grazed at past 5 years average licensed use; land treatments allowed on part of complex.	Grazing: complex grazed at total preference; land treatments allowed on part of complex.	Grazing: excluded from riparian areas; P areas grazed at 25% of past 5 years average licensed use; SPM areas at 50%; remainder at past 5 years average; land treatments allowed on part of complex.	Grazing: excluded from riparian areas; remainder grazed at 25% of past 5 years average licensed use; no new land treatments allowed.	Grazing: excluded from part of ISA; remainder grazed at past 5 years average licensed use; land treatments allowed on part of complex.
Recreation: ISA managed as part of Grand Gulch Plateau SRMA; closed to ORV use; remainder open to ORV use.	Recreation: ISA managed as part of Grand Gulch Plateau SRMA; remainder open to ORV use.	Recreation: ISA managed as part of Grand Gulch Plateau SRMA; P and SPM areas closed to ORV use; remainder open to ORV use.	Recreation: ISA managed as part of Grand Gulch Plateau SRMA; complex closed to ORV use.	Recreation: ISA managed as part of Grand Gulch Plateau SRMA; P areas closed to ORV use; remainder of ACEC limited to designated roads and trails.

<u>Indian Creek WSA</u>	<u>Indian Creek WSA</u>	<u>Indian Creek WSA</u>	<u>Indian Creek WSA</u>	<u>Indian Creek WSA</u>
		ROS classes present: P and SPNM.	WSA is within an identified natural succession area.	ROS classes present: P and SPNM.
Special designations: none.	Special designations: none.	Special designations: none.	Special designations: none.	Special designations: within larger Indian Creek ACEC.
Minerals: open to leasing, sales, and entry.	Minerals: open to leasing, sales, and entry, with provisions to protect riparian areas.	Minerals: stipulated no surface occupancy for leasing and sales; P areas segregated from entry; remainder open.	Minerals: closed to leasing and sales; segregated from entry.	Minerals: ACEC stipulated no surface occupancy for leasing and sales; segregated from entry.
Grazing: at past 5 years average licensed use.	Grazing: at total preference.	Grazing: excluded from riparian areas; P areas grazed at 25% of past 5 years average licensed use; SPNM areas at 50%.	Grazing: excluded from riparian areas; remainder grazed at 25% of past 5 years average licensed use.	Grazing: at past 5 years average licensed use.
Recreation: open to ORV use.	Recreation: open to ORV use.	Recreation: managed as part of Indian Creek SRMA; closed to ORV use.	Recreation: managed as part of Indian Creek SRMA; closed to ORV use.	Recreation: managed as part of Canyon Basins SRMA; ACEC closed to ORV use.
<u>Bridger Jack Mesa WSA</u>	<u>Bridger Jack Mesa WSA</u>	<u>Bridger Jack Mesa WSA</u>	<u>Bridger Jack Mesa WSA</u>	<u>Bridger Jack Mesa WSA</u>
		ROS class present: SPNM.	WSA is within an identified natural succession area.	ROS class present: SPNM.
Special designations: none.	Special designations: RNA covering part of WSA.	Special designations: ACEC; also included in North Abajo ACEC.	Special designations: RNA; also included in North Abajo ACEC.	Special designations: ACEC.
Minerals: stipulated no surface occupancy for leasing; open to entry.	Minerals: RNA stipulated no surface occupancy for leasing and sales; open to entry; remainder open.	Minerals: stipulated no surface occupancy for leasing; closed to sales and entry.	Minerals: closed to leasing and sales; segregated from entry.	Minerals: ACEC stipulated no surface occupancy for leasing and sales; open to entry.
Grazing: area not grazed.	Grazing: excluded.	Grazing: excluded.	Grazing: excluded.	Grazing: excluded.
Recreation: open to ORV use.	Recreation: closed to ORV use.	Recreation: managed as part of Indian Creek SRMA; closed to ORV use.	Recreation: managed as part of Indian Creek SRMA; closed to ORV use.	Recreation: managed as part of Canyon Basins SRMA; ACEC closed to ORV use.

TABLE 2-9 (Continued)

PLANNING ISSUE: Wilderness Study Area Management

DECISIONS NEEDED: How should areas within the SJRA now designated as ISAs and WSAs be managed if not designated as wilderness by Congress?

<u>Alternative A</u>	<u>Alternative B</u>	<u>Alternative C<sup>a</sup></u>	<u>Alternative D<sup>b</sup></u>	<u>Alternative E</u>
<u>Butler Wash WSA</u>	<u>Butler Wash WSA</u>	<u>Butler Wash WSA</u>	<u>Butler Wash WSA</u>	<u>Butler Wash WSA</u>
		ROS classes present: P, SPNM, and SPM.	WSA is within an identified natural succession area.	ROS classes present: P, SPNM, and SPM.
Special designations: none.	Special designations: none.	Special designations: part of Beef Basin National Register archaeologic district.	Special designations: within Beef Basin ACEC; part of Beef Basin National Register archaeologic district.	Special designations: partial ACEC.
Minerals: stipulated no surface occupancy or closed to leasing; open to entry.	Minerals: open to leasing, sales, and entry.	Minerals: P and SPNM areas stipulated no surface occupancy for leasing and sales; P areas segregated from entry; remainder open with provisions to protect crucial wildlife habitats.	Minerals: closed to leasing and sales; segregated from entry.	Minerals: ACEC stipulated no surface occupancy for leasing and sales; segregated from entry; remainder open with provisions to protect SPNM and crucial wildlife habitats.
Grazing: at past 5 years average licensed use.	Grazing: at total preference.	Grazing: P areas at 25% of past 5 years average licensed use, SPNM areas at 50%; remainder at past 5 years average.	Grazing: at 25% of past 5 years averaged licensed use.	Grazing: at past 5 years average licensed use.
Recreation: open to ORV use.	Recreation: open to ORV use.	Recreation: managed as part of Beef Basin SRMA; P and SPNM areas closed to ORV use; remainder open with provisions to protect crucial wildlife habitats.	Recreation: managed as part of Beef Basin SRMA; closed to ORV use.	Recreation: managed as part of Canyon Basins SRMA; ACEC closed to ORV use; SPNM areas limited to existing roads and trails; remainder open with provisions to protect crucial wildlife habitats.

<u>South Needles WSA</u>	<u>South Needles WSA</u>	<u>South Needles WSA</u>	<u>South Needles WSA</u>	<u>South Needles WSA</u>
		ROS class present: P.	WSA is within an identified natural succession area.	ROS classes present: P.
Special designations: none.	Special designations: none.	Special designations: part of Beef Basin National Register archaeologic district.	Special designations: within Beef Basin ACEC; part of Beef Basin National Register archaeologic district.	Special designations: part of Butler Wash ACEC.
Minerals: stipulated no surface occupancy for leasing; open to entry.	Minerals: open to leasing, sales, and entry.	Minerals: stipulated no surface occupancy for leasing and sales; segregated from entry.	Minerals: closed to leasing and sales; segregated from entry.	Minerals: stipulated no surface occupancy for leasing and sales; segregated from entry.
Grazing: at past 5 years average licensed use.	Grazing: at total preference.	Grazing: at 25% of past 5 years average licensed use.	Grazing: at 25% of past 5 years average licensed use.	Grazing: at past 5 years average licensed use.
Recreation: open to ORV use.	Recreation: open to ORV use.	Recreation: managed as part of Beef Basin SRMA; closed to ORV use.	Recreation: managed as part of Beef Basin SRMA; closed to ORV use.	Recreation: managed as part of Canyon Basins SRMA; closed to ORV use.
<u>Mancos Mesa WSA</u>	<u>Mancos Mesa WSA</u>	<u>Mancos Mesa WSA</u>	<u>Mancos Mesa WSA</u>	<u>Mancos Mesa WSA</u>
		ROS classes present: P and RN.	WSA is within an identified natural succession area.	ROS classes present: P and RN.
Special designations: none.	Special designations: none.	Special designations: none.	Special designations: within Moki-Red Canyon ACEC.	Special designations: none.
Minerals: open to leasing, sales, and entry.	Minerals: open to leasing, sales, and entry.	Minerals: P areas stipulated no surface occupancy for leasing and sales and segregated from entry; remainder open with provisions to protect crucial wildlife habitats.	Minerals: closed to leasing and sales; segregated from entry.	Minerals: P areas stipulated no surface occupancy for leasing and sales; open to entry; remainder open with provisions to protect crucial wildlife habitats.
Grazing: at past 5 years average licensed use.	Grazing: at total preference.	Grazing: P areas grazed at 25% of past 5 years average licensed use; RN areas at past 5 years average.	Grazing: at 25% of past 5 years average licensed use.	Grazing: at past 5 years average licensed use.
Recreation: open to ORV use.	Recreation: open to ORV use.	Recreation: P areas closed to ORV use; remainder open with provisions to protect crucial wildlife habitats.	Recreation: closed to ORV use.	Recreation: closed to ORV use.

TABLE 2-9 (Continued)

PLANNING ISSUE: Wilderness Study Area Management

DECISIONS NEEDED: How should areas within the SJRA now designated as ISAs and WSAs be managed if not designated as wilderness by Congress?

Alternative A	Alternative B	Alternative C <sup>a</sup>	Alternative D <sup>b</sup>	Alternative E
<u>Cheesebox Canyon WSA</u>	<u>Cheesebox Canyon WSA</u>	<u>Cheesebox Canyon WSA</u>	<u>Cheesebox Canyon WSA</u>	<u>Cheesebox Canyon WSA</u>
		ROS classes present: SPNM and SPM.	WSA is within an identified natural succession area.	ROS classes present: SPNM and SPM.
Special designations: none.	Special designations: none.	Special designations: none.	Special designations: within White Canyon ACEC.	Special designations: partially within the Scenic Highway Corridor ACEC.
Minerals: stipulated no surface occupancy or special leasing conditions attached; open to sales and entry.	Minerals: open to leasing, sales, and entry.	Minerals: SPNM areas stipulated no surface occupancy for leasing and sales; remainder open with provisions to protect crucial wildlife habitats.	Minerals: closed to leasing and sales; segregated from entry.	Minerals: ACEC stipulated no surface occupancy for leasing and sales; segregated from entry. Remainder open to leasing, sales, and entry with provisions to protect SPNM areas and crucial wildlife habitats.
Grazing: at past 5 years average licensed use.	Grazing: at total preference.	Grazing: SPNM areas at 50% of past 5 years average licensed use; remainder at past 5 years average.	Grazing: at 25% of past 5 years average licensed use.	Grazing: at past 5 years average licensed use.
Recreation: open to ORV use.	Recreation: open to ORV use.	Recreation: SPNM areas closed to ORV use, remainder open with provisions to protect crucial wildlife habitats.	Recreation: closed to ORV use.	Recreation: ACEC closed to ORV use. SPNM areas limited to existing roads and trails with provisions to protect crucial wildlife habitats; remainder open with provisions to protect crucial wildlife habitats.

<u>Road Canyon WSA</u>	<u>Road Canyon WSA</u>	<u>Road Canyon WSA</u>	<u>Road Canyon WSA</u>	<u>Road Canyon WSA</u>
		ROS classes present: P, SPNM, and RN.	WSA is within an identified natural succession area.	ROS classes present: P, SPNM, and RN.
Special designations: none.	Special designations: none.	Special designations: 2 ONAs covering part of WSA; also included in Grand Gulch Plateau National Register archaeological district.	Special designations: within Cedar Mesa ACEC. 2 ONAs covering part of WSA; also included in Grand Gulch Plateau National Register archaeological district.	Special designations: within Cedar Mesa ACEC. Part of Grand Gulch Plateau National Register archaeological district.
Minerals: stipulated no surface occupancy or special leasing conditions attached; open to entry.	Minerals: open to leasing and entry with conditions to protect riparian areas.	Minerals: P and SPNM areas stipulated no surface occupancy for leasing and sales; P areas segregated from entry; remainder open with provisions to protect riparian areas.	Minerals: closed to leasing and sales; segregated from entry.	Minerals: P areas stipulated no surface occupancy for leasing and sales and segregated from entry. Remainder open to leasing, sales, and entry with special conditions to protect ACEC and riparian areas.
Grazing: at past 5 years average licensed use.	Grazing: at total preference.	Grazing: excluded from riparian areas; P areas grazed at 25% of past 5 years average licensed use; SPNM areas at 50 percent; remainder at past 5 years average.	Grazing: excluded from riparian areas; remainder grazed at past 5 years average licensed use.	Grazing: at past 5 years average licensed use.
Recreation: managed as part of Grand Gulch Plateau SRMA; open to ORV use.	Recreation: open to ORV use.	Recreation: managed as part of Grand Gulch Plateau SRMA; P and SPNM areas closed to ORV use; riparian areas limited to existing roads and trails; remainder open.	Recreation: managed as part of Grand Gulch Plateau SRMA; closed to ORV use.	Recreation: managed as part of Grand Gulch Plateau SRMA; P areas closed to ORV use; remainder limited to designated roads and trails.
<u>Fish Creek WSA</u>	<u>Fish Creek WSA</u>	<u>Fish Creek WSA</u>	<u>Fish Creek WSA</u>	<u>Fish Creek WSA</u>
		ROS classes present: P, SPNM, SPM, and RN.	WSA is within an identified natural succession area.	ROS classes present: P, SPNM, SPM, and RN.
Special designations: none.	Special designations: none.	Special designations: 2 ONAs covering part of WSA; also designated as part of Grand Gulch Plateau National Register archaeological district.	Special designations: within Cedar Mesa ACEC. ONA covering part of WSA; also designated as part of Grand Gulch Plateau National Register archaeological district.	Special designations: within Cedar Mesa ACEC; part of Grand Gulch Plateau National Register archaeological district.



TABLE 2-9 (Continued)

PLANNING ISSUE: Wilderness Study Area Management

DECISIONS NEEDED: How should areas within the SJRA now designated as ISAs and WSAs be managed if not designated as wilderness by Congress?

<u>Alternative A</u>	<u>Alternative B</u>	<u>Alternative C<sup>a</sup></u>	<u>Alternative D<sup>b</sup></u>	<u>Alternative E</u>
<u>Fish Creek WSA (Concluded)</u>	<u>Fish Creek WSA (Concluded)</u>	<u>Fish Creek WSA (Concluded)</u>	<u>Fish Creek WSA (Concluded)</u>	<u>Fish Creek WSA (Concluded)</u>
Minerals: stipulated no surface occupancy or special leasing conditions attached; open to entry.	Minerals: open to leasing, sales, and entry, with provisions to protect riparian areas.	Minerals: P and SPNM areas stipulated no surface occupancy for leasing and sales; P areas segregated from entry; remainder open with provisions to protect riparian areas.	Minerals: closed to leasing and sales; segregated from entry.	Minerals: P areas stipulated no surface occupancy for leasing and sales and segregated from entry. Remainder open to leasing, sales, and entry with special conditions to protect ACEC and riparian areas.
Grazing: at past 5 years average licensed use.	Grazing: at total preference.	Grazing: excluded from riparian areas; P areas grazed at 25% of past 5 years average licensed use; SPNM areas at 50%; remainder at past 5 years average.	Grazing: excluded from riparian areas; remainder grazed at 25% of past 5 years average licensed use.	Grazing: at past 5 years average licensed use.
Recreation: managed as part of Grand Gulch Plateau SRMA; open to ORV use.	Recreation: open to ORV use.	Recreation: managed as part of Grand Gulch Plateau SRMA; P and SPNM areas closed to ORV use; riparian areas limited to existing roads and trails; remainder open.	Recreation: managed as part of Grand Gulch Plateau SRMA; closed to ORV use.	Recreation: managed as part of Grand Gulch Plateau SRMA; P areas closed to ORV use; remainder limited to designated roads and trails.
<u>Mule Canyon WSA</u>	<u>Mule Canyon WSA</u>	<u>Mule Canyon WSA</u>	<u>Mule Canyon WSA</u>	<u>Mule Canyon WSA</u>
		ROS class present: SPNM.	WSA is within an identified natural succession area.	ROS class present: SPNM.
Special designations: none.	Special designations: none.	Special designations: ONA covering part of WSA; also included in Grand Gulch Plateau National Register archaeological district.	Special designations: within Cedar Mesa ACEC. ONA covering part of WSA; also included in Grand Gulch Plateau National Register archaeological district.	Special designations: within Cedar Mesa ACEC. Part of Grand Gulch Plateau National Register archaeological district.

<u>Mule Canyon WSA (Concluded)</u>	<u>Mule Canyon WSA (Concluded)</u>	<u>Mule Canyon WSA (Concluded)</u>	<u>Mule Canyon WSA (Concluded)</u>	<u>Mule Canyon WSA (Concluded)</u>
Minerals: stipulated no surface occupancy.	Minerals: open to leasing, sales, and entry, with conditions to protect riparian areas.	Minerals: stipulated no surface occupancy for leasing and sales; open to entry.	Minerals: closed to leasing, and sales; segregated from entry.	Minerals: open to leasing, sales, and entry with provisions to protect ACEC and riparian areas.
Grazing: at past 5 years average licensed use.	Grazing: at total preference.	Grazing: excluded from riparian areas; remainder grazed at 50% of past 5 years average licensed use.	Grazing: excluded from riparian areas; remainder grazed at 25% of past 5 years average licensed use.	Grazing: at past 5 years average licensed use.
Recreation: managed as part of Grand Gulch Plateau SRMA; open to ORV use.	Recreation: open to ORV use.	Recreation: managed as part of Grand Gulch Plateau SRMA; closed to ORV use.	Recreation: managed as part of Grand Gulch Plateau SRMA; closed to ORV use.	Recreation: managed as part of Grand Gulch Plateau SRMA; ORV use limited to designated roads and trails.
<u>Squaw Canyon WSA</u>	<u>Squaw Canyon WSA</u>	<u>Squaw Canyon WSA</u>	<u>Squaw Canyon WSA</u>	<u>Squaw Canyon WSA</u>
		ROS classes present: P, SPNM, and SPM.	WSA is within an identified natural succession area.	ROS classes present: P, SPNM, and SPM.
Special designations: none.	Special designations: none.	Special designations: none.	Special designations: none.	Special designations: none.
Minerals: open to leasing, sales, and entry.	Minerals: open to leasing, sales, and entry.	Minerals: P and SPNM areas stipulated no surface occupancy for leasing and sales; P areas segregated from entry; remainder open with provisions to protect sensitive soils.	Minerals: closed to leasing and sales; segregated from entry.	Minerals: open to leasing, sales, and entry with provisions to protect sensitive soils.
Grazing: at past 5 years average licensed use.	Grazing: at total preference.	Grazing: P areas grazed at 25% of past 5 years average licensed use, SPNM areas at 50%; remainder at past 5 years average.	Grazing: at 25% of past 5 years average licensed use.	Grazing: at past 5 years average licensed use.
Recreation: open to ORV use.	Recreation: open to ORV use.	Recreation: P and SPNM areas closed to ORV use; remainder open.	Recreation: closed to ORV use.	Recreation: open to ORV use.

TABLE 2-9 (Continued)

PLANNING ISSUE: Wilderness Study Area Management

DECISIONS NEEDED: How should areas within the SJRA now designated as ISAs and WSAs be managed if not designated as wilderness by Congress?

<u>Alternative A</u>	<u>Alternative B</u>	<u>Alternative C<sup>a</sup></u>	<u>Alternative D<sup>b</sup></u>	<u>Alternative E</u>
<u>Cross Canyon WSA</u>	<u>Cross Canyon WSA</u>	<u>Cross Canyon WSA</u>	<u>Cross Canyon WSA</u>	<u>Cross Canyon WSA</u>
		ROS class present: SPNM.	WSA is within an identified natural succession area.	ROS classes present: SPNM.
Special designations: none.	Special designations: none.	Special designations: none.	Special designations: none.	Special designations: none.
Minerals: open to leasing, sales, and entry.	Minerals: open to leasing, sales, and entry.	Minerals: stipulated no surface occupancy for leasing and sales; open to entry with provisions to protect sensitive soils.	Minerals: closed to leasing and sales; segregated from entry.	Minerals: open to leasing, sales, and entry with provisions to protect sensitive soils.
Grazing: at past 5 years average licensed use.	Grazing: at total preference.	Grazing: at 50% of past 5 years averaged licensed use.	Grazing: at 25% of past 5 years average licensed use.	Grazing: at past 5 years average licensed use.
Recreation: open to ORV use.	Recreation: open to ORV use.	Recreation: closed to ORV use.	Recreation: closed to ORV use.	Recreation: open to ORV use.

PLANNING ISSUE: Vegetation Management

DECISIONS NEEDED: Where should uses of the public lands within SJRA be allowed to affect vegetative resources, and where should management actions be prescribed to alter present vegetative patterns?

<u>Alternative A</u>	<u>Alternative B</u>	<u>Alternative C<sup>a</sup></u>	<u>Alternative D<sup>b</sup></u>	<u>Alternative E</u>
See the Livestock Management issue for grazing use of forage.	See the Livestock Management issue for grazing use of forage.	See the Livestock Management issue for grazing use of forage.	See the Livestock Management issue for grazing use of forage.	See the Livestock Management issue for grazing use of forage.

Special management designations to maintain relict plant communities: - none.	Special management designations to maintain relict plant communities: - Bridger Jack Mesa RNA (partial) - Lavender Mesa RNA	Special management designations to maintain relict plant communities: - Bridger Jack Mesa ACEC - Lavender Mesa ACEC	Special management designations to maintain relict plant communities: - Bridger Jack Mesa RNA - Lavender Mesa RNA	Special management designations to maintain relict plant communities: - Bridger Jack Mesa ACEC - Lavender Mesa ACEC
Limitations on surface disturbance to protect vegetation: - crucial wildlife habitat areas (oil and gas only).	Limitations on surface disturbance to protect vegetation: - Bridger Jack and Lavender Mesa RNAs	Limitations on surface disturbance to protect vegetation: - crucial wildlife habitat areas; - identified mesa tops; - riparian areas; - slopes greater than 10%. - Bridger Jack and Lavender Mesa ACECs;	Limitations on surface disturbance to protect vegetation: - identified natural succession areas; - reclamation requirement throughout SJRA; - Bridger Jack and Lavender Mesa RNAs.	Limitations on surface disturbance to protect vegetation: - crucial wildlife habitat areas; - identified mesa tops; - riparian areas; - slopes greater than 10%; - Bridger Jack and Lavender Mesa ACECs.
Maintenance of existing land treatments: allowed.	Maintenance of existing land treatments: allowed.	Maintenance of existing land treatments: allowed.	Maintenance of existing land treatments: allowed only outside natural succession areas.	Maintenance of existing land treatments: allowed.
Implementation of new land treatments: allowed where identified in AMPs.	Implementation of new land treatments: allowed on specified allotments.	Implementation of new land treatments: allowed on specified allotments.	Implementation of new land treatments: not allowed.	Implementation of new land treatments: allowed on specified allotments.
Forest product harvest: - excluded from existing primitive areas; - allowed in designated areas, except for dead fuelwood in Beef Basin.	Forest product harvest: - excluded from developed recreation sites; - limited onsite use allowed in RNAs; - allowed elsewhere with provisions to protect riparian areas.	Forest product harvest: - excluded from developed recreation sites; - limited onsite use allowed on identified mesa tops, in riparian areas, and in P and SPNM-class areas; - allowed elsewhere with provisions to protect wildlife habitats, sensitive soil areas, SPM class and Alkali Ridge, Lockhart Basin, and North Abajo ACECs.	Forest product harvest: - excluded from developed recreation sites; - limited onsite use allowed in identified natural succession areas, riparian areas, sensitive soil areas, in Alkali Ridge, Hovenweep, Lockhart Basin Moki-Red Canyon, Scenic Highway Corridor, and White Canyon ACECs, and in RNAs. - allowed elsewhere with provisions to protect vegetation resources.	Forest product harvest: - excluded from developed recreation sites and Hovenweep ACEC; - limited onsite use allowed in most P-class areas, in Bridger Jack Mesa, Butler Wash, Dark Canyon, Indian Creek, Lavender Mesa, and Scenic Highway Corridor ACECs, in Valley of the Gods, and in Pearson Canyon and San Juan River SRMAs; - allowed elsewhere with provisions to protect crucial big game habitat, riparian areas, sensitive soil areas, most SPNM-class areas, and Alkali Ridge, Cedar Mesa, and Snay Canyon ACECs.

TABLE 2-9 (Continued)

PLANNING ISSUE: Vegetation Management

DECISIONS NEEDED: Where should uses of the public lands within SJRA be allowed to affect vegetative resources, and where should management actions be prescribed to alter present vegetative patterns?

<u>Alternative A</u>	<u>Alternative B</u>	<u>Alternative C<sup>a</sup></u>	<u>Alternative D<sup>b</sup></u>	<u>Alternative E</u>
Sustained yield management: - where forest products are sold.	Sustained yield management: - where forest products are sold, but without curtailing forage production.	Sustained yield management: - where forest products are sold, but without curtailing wildlife habitat or altering ROS classes.	Sustained yield management: - where forest products are sold, but without infringing on identified criteria.	Sustained yield management: - where forest products are sold, while protecting ACECs and SPNM-class areas.
Reclamation after surface disturbance: - standard reclamation practices, native and exotic seed mixes.	Reclamation after surface disturbance: - slope reducing practices and seed mixes that emphasize forage plants and rapid ground cover potential (except in Bridger Jack and Lavender Mesa RNAs where native seed mixes would be used).	Reclamation after surface disturbance: - slope reducing practices and native seed mixes in P-class areas and in Bridger Jack Lavender Mesa, and Lockhart Basin ACECs.	Reclamation after surface disturbance: - slope reducing practices and native seed mixes in identified natural succession areas and in Lockhart Basin ACEC.	Reclamation after surface disturbance: - slope reducing practices and native seed mixes in most P-class areas and in Bridger Jack Mesa, Butler Wash, Indian Creek, Lavender Mesa, and Scenic Highway Corridor ACECs and in Valley of the Gods.
Protection of riparian vegetation: - as required by executive order.	Protection of riparian vegetation: - as required by executive order.	Protection of riparian vegetation: - as necessary to increase wildlife habitat and watershed values.	Protection of riparian vegetation: - as necessary to increase vegetation density and extent.	Protection of riparian vegetation: - as necessary to increase certain wildlife habitats and watershed values.

PLANNING ISSUE: Wildlife Habitat Management

DECISIONS NEEDED: How should special wildlife habitat areas within SJRA be managed, and where should management actions be prescribed to alter or maintain present habitat area?

<u>Alternative A</u>	<u>Alternative B</u>	<u>Alternative C<sup>a</sup></u>	<u>Alternative D<sup>b</sup></u>	<u>Alternative E</u>
Wildlife population goals: - none specified.	Wildlife population goals: - subordinate to livestock population goals.	Wildlife population goals: - attempt to approach UDWR's prior stable numbers.	Wildlife population goals: - subordinate to vegetation management goals.	Wildlife population goals: - subordinate to recreation management goals.

Crucial habitat protection: - seasonal stipulations and special lease conditions oil and gas only).	Crucial habitat protection: - standard.	Crucial habitat protection: - seasonal stipulations, special lease conditions, grazing exclusions, and off- site mitigation requirements.	Crucial habitat protection: - standard.	Crucial habitat protection: - seasonal stipulations, special conditions, and some grazing exclusions.
Riparian/aquatic habitat management: see the vege- tation issue.	Riparian/aquatic habitat management: see the vege- tation issue.	Riparian/aquatic habitat management: see the vege- tation issue.	Riparian/aquatic habitat management: see the vege- tation issue.	Riparian/aquatic habitat management: see the vege- tation issue.
Grazing exclusions and areal allotments: see the live- stock management issue.	Grazing exclusions and areal allotments: see the live- stock management issue.	Grazing exclusions and areal allotments: see the live- stock management issue.	Grazing exclusions and areal allotments: see the live- stock management issue.	Grazing exclusions and areal allotments: see the live- stock management issue.
ORV use restrictions to pro- tect wildlife habitat: see the recreation management issue.	ORV use restrictions to pro- tect wildlife habitat: see the recreation management issue.	ORV use restrictions to pro- tect wildlife habitat: see the recreation management issue.	ORV use restrictions to pro- tect wildlife habitat: see the recreation management issue.	ORV use restrictions to pro- tect wildlife habitat: see the recreation management issue.

PLANNING ISSUE: Recreation Management

DECISIONS NEEDED: Which recreational opportunities on the public lands should be maintained, increased, or decreased, and where should management actions be prescribed to preserve this mix of opportunities?

<u>Alternative A</u>	<u>Alternative B</u>	<u>Alternative C<sup>a</sup></u>	<u>Alternative D<sup>b</sup></u>	<u>Alternative E</u>
Recreation management areas: - continue current manage- ment of Dark Canyon and Grand Gulch Primitive Areas and San Juan River SRMA;	Recreation management areas: - limit recreation use in Dark Canyon, Grand Gulch, and San Juan River SRMAs if conflict- ing with livestock use or mineral development;	Recreation management areas: - manage Dark Canyon, Grand Gulch, and San Juan River SRMAs to maintain existing ROS classes;	Recreation management areas: - manage Dark Canyon, Grand Gulch, and San Juan River SRMAs to meet identified criteria;	Recreation management areas: - manage Dark Canyon and Grand Gulch SRMAs to main- tain existing ROS P-class areas and to protect SPNM- class areas where possible;
		- designate Beef Basin, Indian Creek, and Montezuma Creek as SRMAs and manage to main- tain existing ROS classes;	- designate Beef Basin, Indian Creek, and Montezuma Creek as SRMAs and manage to meet identified criteria;	- manage SPM-class areas with- in San Juan River SRMA as P- class areas;
				- designate the Canyon Basins (including Dark Canyon) and Pearson Canyon as SRMAs and manage to maintain existing P-class areas and to protect existing SPNM class where possible;

TABLE 2-9 (Continued)

PLANNING ISSUE: Recreation Management

DECISIONS NEEDED: Which recreational opportunities on the public lands should be maintained, increased, or decreased, and where should management actions be prescribed to preserve this mix of opportunities?

Alternative A	Alternative B	Alternative C <sup>a</sup>	Alternative D <sup>b</sup>	Alternative E
Recreation management areas (Concluded):	Recreation management areas (Concluded):	Recreation management areas (Concluded):	Recreation management areas (Concluded):	Recreation management areas (Concluded):
				- eliminate surface disturbance and grazing use from Pearson Canyon SRMA;
- manage remainder of SJRA as an extensive RMA.	- provide no specific management guidance for remaining extensive RMA.	- manage remaining extensive RMA to maintain existing ROS classes.	- provide no specific management guidance for remaining extensive RMA.	- manage remaining extensive RMA to maintain most P-class areas and protect most SPNM-class areas where possible.
Developed recreation sites: - continue current management of 6 sites.	Developed recreation sites: - continue current management of 6 sites. - eliminate surface disturbance, livestock use, and fuelwood harvest; - limit ORV use to designated roads and trails.	Developed recreation sites: - maintain 4 existing sites; - improve 2 existing sites and develop 5 additional sites; - eliminate surface disturbance, livestock use, and fuelwood harvest; - limit ORV use to designated roads and trails.	Developed recreation sites: - continue current management of 6 sites. - eliminate surface disturbance, livestock use, and fuelwood harvest; - limit ORV use to designated roads and trails.	Developed recreation sites: - maintain 4 existing sites; - improve 2 existing sites and develop 5 additional sites; - eliminate surface disturbance, livestock use, and fuelwood harvest; - limit ORV use to designated roads and trails.
Special management designations to protect primitive recreation values: <sup>c</sup>	Special management designations to protect primitive recreation values: <sup>c</sup>	Special management designations to protect primitive recreation values: <sup>c</sup>	Special management designations to protect primitive recreation values: <sup>c</sup>	Special management designations to protect primitive recreation values: <sup>c</sup>
- no new designations.	- no new designations.	- designate 8 ONAs: Dark Canyon and Grand Gulch Primitive Areas, Slickhorn Canyon, Johns Canyon, Fish and Owl Canyons, Road Canyon, Lime Canyon, and Mule Canyon.	- manage Grand Gulch Primitive Area as part of the Cedar Mesa ACEC.  - designate 9 ONAs: Dark Canyon and Grand Gulch Primitive Areas, Slickhorn Canyon, Johns Canyon, Fish and Owl Canyons, Road Canyon, Lime Canyon, Mule Canyon, and Arch Canyon.	- designate 2 ACECs: Dark Canyon Primitive Area and Cedar Mesa;  - manage Grand Gulch Primitive Area as part of the Cedar Mesa ACEC.

ORV use designations: - closed to ORV use: existing primitive areas;	ORV use designations: - closed to ORV use: RNAs;	ORV use designations: - closed to ORV use: identified mesa tops, P and SPNM-class areas, Bridger Jack Grand Gulch, and Lavender Mesa ACECs;	ORV use designations: - closed to ORV use: identified natural succession areas, Grand Gulch and North Abajo ACECs, and RNAs;	ORV use designations: - closed to ORV use: most P-class areas, Bridger Jack, Butler Wash, Dark Canyon, Indian Creek, Lavender Mesa, and Scenic Highway Corridor ACECs, Cedar Mesa ACEC (partial), the SPM area of San Juan River SRMA; and the RN area of Mancos Mesa.
	- limited to designated roads and trails: developed recreation sites;	- limited to designated roads and trails: developed recreation sites;	- limited to designated roads and trails: Alkali Ridge and Hovenweep ACECs and developed recreation sites;	- limited to designated roads and trails: Cedar Mesa ACEC (partial), Hovenweep ACEC, Pearson Canyon SRMA, certain SPNM-class areas and certain adjacent areas, and developed recreation sites;
		- limited to existing roads and trails: riparian areas, sensitive soil areas, and Alkali Ridge, Lockhart Basin, and North Abajo ACECs.	- limited to existing roads and trails: riparian areas, sensitive soil areas, and Lockhart Basin ACEC;	- limited to existing roads and trails: riparian areas, certain SPNM-class areas and certain adjacent areas, and Alkali Ridge and Shay Canyon ACECs.
		- limited with seasonal restrictions: crucial wildlife habitat areas;		- limited with seasonal restrictions: crucial wildlife habitat areas;
- open for ORV use: all other areas.	- open for ORV use: all other areas.	- open for ORV use: all other areas.	- open for ORV use: all other areas.	- open for ORV use: all other areas.

<sup>a</sup>Recreation Opportunity Spectrum (ROS) classes mentioned in alternative C are P (primitive), SPNM (semiprimitive nonmotorized), SPM (semiprimitive motorized), RN (roaded natural), and U (urban).

<sup>b</sup>The identified criteria mentioned in alternative D include limitation of new surface disturbance throughout SJRA to that which can be reclaimed within 5 years to match the initial conditions; and within identified natural succession areas, protection of natural succession of plant species and VRM class-I objectives. Disturbed areas would be reclaimed to meet these requirements, using only native species in the identified areas. See appendix A.

<sup>c</sup>Primitive area designations will be rescinded (Dark Canyon and Grand Gulch) upon completion of wilderness review by Congress.



TABLE 2-10

Summary Comparison of Impacts, by Alternative  
(By the Year 2000)

Environmental Component/Specific Indicator		Alternative A Total Quantity (Baseline)	Alternative B Total Quantity (Change)	Alternative C Total Quantity (Change)	Alternative D Total Quantity (Change)	Alternative E Total Quantity (Change)
MINERAL COMPONENTS						
<u>Oil and Gas</u>						
Area available for lease:						
Category 1	acres (change)	891,310	1,768,740 (+877,430)	383,560 (-507,750)	0 (-891,310)	481,150 (-410,160)
Category 2	acres (change)	617,170	6,540 (-610,630)	683,040 (+65,870)	461,670 (-155,500)	923,450 (+306,280)
Category 3	acres (change)	114,120	2,550 (-111,570)	711,230 (+597,110)	241,770 (+127,150)	373,230 (+259,110)
Category 4	acres (change)	155,230	0 (-155,230)	0 (-155,230)	1,074,890 (+919,660)	0 (-155,230)
Oil Production:	barrels per year (change)	unquantified	unquantified (+significant)	unquantified (-significant)	unquantified (-significant)	unquantified (+insignificant)
Gas Production:	MCF/year (change)	unquantified	unquantified (+significant)	unquantified (-significant)	unquantified (-significant)	unquantified (+insignificant)
Geophysical operations (seismic line)	miles/year (change)	750	750 (no change)	725 (-25)	725 (-25)	750 (no change)
<u>Coal</u>						
Area available for lease:						
	acres (change)	0	212,000 (+212,000)	0 (no change)	0 (no change)	0 (no change)
Production:	tons per year (change)	0	unquantified (+unknown)	0 (no change)	0 (no change)	0 (no change)

Tar Sand

## Area available for lease:

Category 1	acres (change)	3,080	7,980 (+4,900)	2,010 (-1,070)	0 (-3,080)	500 (-2,580)
Category 2	acres (change)	4,620	0 (-4,620)	3,900 (-720)	240 (-4,380)	5,510 (+890)
Category 3	acres (change)	120	0 (-120)	2,070 (+1,950)	380 (+260)	1,970 (+1,850)
Category 4	acres (change)	160	0 (-160)	0 (-160)	7,360 (+7,200)	0 (-160)

Mineral Materials

## Area available for material disposal:

acres (change)	1,679,340	1,776,640 (+97,300)	1,067,960 (-611,380)	463,030 (-1,126,310)	1,405,340 (-274,000)
Production: cubic yards per year (change)	192,000	192,000 (no change)	192,000 (no change)	96,000 (-96,000)	192,000 (no change)

1-73

Locatable Minerals

## Area available for location:

acres (change)	1,674,480	1,776,190 (+101,710)	1,538,430 (-136,050)	710,260 (-964,220)	1,497,610 (-176,870)
Gold Production: ounces (change)	50	50 (no change)	unquantified (-insignificant)	unquantified (-insignificant)	unquantified (-insignificant)

Other Nonenergy Leasable Minerals

## Area available for lease:

Standard conditions	acres (change)	1,777,830	1,768,740 (-9,090)	383,560 (-1,394,270)	0 (-1,777,830)	481,150 (-1,296,680)
Special conditions	acres (change)	0	6,540 (+6,540)	683,040 (+683,040)	461,670 (+461,670)	923,450 (+923,450)
No Surface Occupancy	acres (change)	0	2,550 (+2,550)	711,230 (+711,230)	241,270 (+241,270)	373,230 (+373,230)

TABLE 2-10 (Continued)

<u>Environmental Component/Specific Indicator</u>	<u>Unit</u>	<u>Alternative A Total Quantity (Baseline)</u>	<u>Alternative B Total Quantity (Change)</u>	<u>Alternative C Total Quantity (Change)</u>	<u>Alternative D Total Quantity (Change)</u>	<u>Alternative E Total Quantity (Change)</u>
<u>Other Nonenergy Leasable Minerals (Concluded)</u>						
Closed to Lease	acres (change)	0	0 (no change)	0 (no change)	1,074,890 (+1,074,890)	0 (no change)
Potash area available for development:	acres (change)	300,000	300,000 (no change)	262,820 (-21,380)	97,700 (-202,300)	285,280 (-14,720)
<u>BIOTIC COMPONENTS</u>						
<u>Air</u>						
Air quality: NAAQS and PSD class-II increments	(change)	high	high (-insignificant)	high (no change)	high (no change)	high (no change)
<u>Soils</u>						
Soils loss:	tons per year (change)	643,720	834,820 (+191,100)	564,000 (-76,420)	557,910 (-83,420)	581,975 (-61,745)
<u>Water</u>						
<u>Surface water quality:</u>						
Sediment yield	acre-feet per year (change)	160	200 (+40)	140 (-20)	137 (-23)	130 (-30)
Salt yield	tons/year (change)	630	800 (+170)	560 (-70)	550 (-80)	540 (-90)
<u>Ground water quality:</u>						
Total dissolved solids	milligrams per litre (change)	unquantified	unquantified (+500 to 2,000)	unquantified (no change)	unquantified (no change)	unquantified (no change)

### Vegetation

Vegetation disturbance:	acres	39,400	176,050	40,370	23,655	44,800
(short-term loss)	(change)		(+136,650)	(+970)	(-15,745)	(+5,400)
(residual loss)	acres	5,130	6,740	8,150	4,340	8,550
	(change)		(+1,340)	(+3,020)	(-790)	(+3,420)
Area available for forest product use:						
Private dead wood harvest	acres	476,160	449,900	243,520	93,690	317,970
	(change)		(-26,260)	(-232,640)	(-382,470)	(-158,190)
Commercial fuelwood harvest	acres	476,160	449,900	142,270	93,690	317,970
	(change)		(-26,260)	(-333,890)	(-362,470)	(-158,190)
Other forest product harvest	acres	536,810	449,900	142,270	93,690	317,970
	(change)		(-86,910)	(-307,630)	(-443,120)	(-218,840)

### Wildlife

Desert bighorn sheep:	animals	1,200	930	2,000	1,500	1,410
	(change)		(-270)	(+800)	(+300)	(+210)
Crucial bighorn sheep habitat	acres	329,750	306,240	329,850	349,750	328,750
	(change)		(-23,410)	(+100)	(+20,000)	(-1,000)
Antelope:	animals	50	27	100	75	85
	(change)		(-23)	(+50)	(+25)	(+35)
Crucial antelope habitat	acres	12,930	12,930	12,960	12,930	12,930
	(change)		(no change)	(+30)	(no change)	(no change)
Deer:	animals	7,357	3,760	10,000	9,162	8,000
	(change)		(-3,597)	(+2,643)	(+1,805)	(+643)
Crucial deer habitat	acres	191,920	175,540	195,000	192,150	186,966
	(change)		(-16,380)	(+3,080)	(+230)	(-4,965)
Riparian/aquatic and T/E species habitat:	acres	6,080	6,000	7,880	7,880	6,680
	(change)		(-80)	(+1,800)	(+1,800)	(+600)

TABLE 2-10 (Continued)

<u>Environmental Component/Specific Indicator</u>	<u>Unit</u>	<u>Alternative A Total Quantity (Baseline)</u>	<u>Alternative B Total Quantity (Change)</u>	<u>Alternative C Total Quantity (Change)</u>	<u>Alternative D Total Quantity (Change)</u>	<u>Alternative E Total Quantity (Change)</u>
<b>HUMAN USES</b>						
<u>Grazing</u>						
Area available for grazing	acres (change)	1,720,970	1,776,640 (+55,670)	1,678,630 (-42,340)	1,742,430 (+21,460)	1,620,610 (-100,360)
Livestock forage	AUMs (change)	56,735	97,504 (+40,769)	43,345 (-13,390)	37,671 (-19,064)	57,076 (+341)
<u>Cultural Resources</u>						
Archaeologic/ historic sites damaged:	sites (change)	15,764	17,154 (+1,390)	15,030 (-734)	14,289 (-1,475)	14,914 (-764)
Archaeologic/ historic sites protected:	sites (change)	25,380	25,360 (-20)	42,940 (+17,560)	45,120 (+19,740)	28,225 (+2,845)
<u>Recreation</u>						
Area in each ROS class:						
P	acres (change)	61,190	38,840 (-22,350)	198,520 (+137,330)	198,520 (+137,330)	195,810 (+134,690)
SPNM	acres (change)	561,750	522,110 (-39,640)	512,360 (-49,390)	512,360 (-49,390)	421,040 (-140,710)
SPM	acres (change)	393,330	353,400 (-39,930)	326,630 (-66,700)	324,810 (-68,520)	289,020 (-104,310)
RN	acres (change)	747,880	849,800 (+101,920)	726,640 (-21,240)	728,460 (-19,420)	858,280 (+110,400)

R	acres (change)	14,720	14,720 (no change)	14,720 (no change)	14,720 (no change)	14,720 (no change)
U	acres (change)	320	320 (no change)	320 (no change)	320 (no change)	320 (no change)
Area available for ORV recreation:						
Open	acres (change)	1,679,340	1,776,640 (+97,300)	484,320 (-1,195,020)	367,420 (-1,311,920)	611,310 (-1,068,030)
Limited	acres (change)	0	150 (+150)	542,390 (+542,390)	336,880 (+336,880)	813,060 (+813,060)
Closed	acres (change)	99,850	2,400 (-97,450)	752,480 (+652,630)	1,074,890 (+975,040)	354,820 (+254,970)

#### Visual Resources

##### Area in each VRM class:

I	acres (change)	99,850	104,290 (+4,440)	686,860 (+587,010)	1,371,090 (+1,271,240)	348,010 (+248,160)
II	acres (change)	552,460	552,460 (no change)	317,980 (-234,480)	154,230 (-398,230)	356,540 (-195,920)
III	acres (change)	560,070	560,070 (no change)	439,790 (-120,280)	104,960 (-455,110)	540,820 (-19,250)
IV	acres (change)	566,810	562,370 (-4,440)	334,560 (-232,250)	148,910 (-417,900)	533,820 (-32,990)
V	acres (change)	0	0 (no change)	0 (no change)	0 (no change)	0 (no change)

##### Visual contrast rating scores exceeding VRM objectives for any class

scores (change)	271	271 (no change)	206 (-65)	198 (-73)	252 (-19)
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TABLE 2-10 (Continued)

Environmental Component/Specific Indicator	Unit	Alternative A Total Quantity (Baseline)	Alternative B Total Quantity (Change)	Alternative C Total Quantity (Change)	Alternative D Total Quantity (Change)	Alternative E Total Quantity (Change)
<u>Lands</u>						
Lands available for rights-of-way						
Within corridors	acres (change)	0	85,760 (+85,760)	85,760 (+85,760)	85,760 (+85,760)	85,760 (+85,760)
Outside corridors	acres (change)	1,679,340	1,690,880 (+11,540)	982,200 (-697,140)	377,270 (-1,302,070)	1,318,840 (-360,500)
Avoidance areas	acres (change)	0	2,550 (+2,550)	512,460 (+512,460)	241,120 (+241,120)	88,140 (+88,140)
Exclusion areas	acres (change)	99,850	0 (-99,850)	198,770 (+98,920)	1,075,040 (+975,190)	286,450 (+186,600)
Lands available for disposal	acres (change)	2,960	4,270 (+1,310)	6,030 (+3,070)	2,870 (-90)	6,430 (+3,470)
Withdrawals/revocations						
Area withdrawn from entry	acres (change)	101,910	200 (-101,710)	237,960 (+136,050)	1,066,130 (+964,220)	278,780 (+176,870)

## ECONOMIC CONSIDERATIONS

## Minerals:

Income	dollars (change)	7,216,000	8,726,000 (+1,510,000)	7,128,000 (-88,000)	4,133,000 (-3,083,000)	unquantified (insignificant)
Employment	jobs (change)	250	311 (+61)	246 (-4)	103 (-147)	unquantified (insignificant)
Tax Revenues	dollars (change)	4,322,000	4,837,000 (+515,000)	4,264,000 (-58,000)	2,588,000 (-1,734,000)	unquantified (insignificant)

## Soil and Water:

Sediment Cost	dollars	17,500	22,000	15,500	15,200	14,900
	(change)		(+4,500)	(-2,000)	(-2,300)	(-2,600)
Salinity Cost	dollars	36,500	46,400	32,500	31,900	31,300
	(change)		(+9,900)	(-4,000)	(-4,600)	(-5,200)

## Livestock:

Returns to labor and investment	dollars	403,300	682,600	171,800	35,600	384,000
	(change)		(+279,300)	(-231,500)	(-367,700)	(-19,300)
Wealth	dollars	26,753,000	27,821,000	24,536,000	24,166,000	25,280,000
	(change)		(+1,068,000)	(-2,217,000)	(-2,587,000)	(-1,473,000)
Income	dollars	1,013,000	1,133,000	740,000	560,000	868,500
	(change)		(+120,000)	(-273,000)	(-453,000)	(-144,500)
Employment	jobs	176	199	158	146	175
	(change)		(+23)	(-18)	(-30)	(-1)
Tax Revenues	dollars	62,000	74,000	54,900	48,000	61,800
	(change)		(+12,000)	(-7,100)	(-14,000)	(-200)

## Recreation:

Income	dollars	307,000	unquantified	unquantified	unquantified	unquantified
	(change)		(unknown)	(+insignificant)	(unknown)	(+insignificant)
Employment	jobs	23	unquantified	unquantified	unquantified	unquantified
	(change)		(unknown)	(+insignificant)	(unknown)	(+insignificant)
Tax Revenues	dollars	10,600	unquantified	unquantified	unquantified	unquantified
	(change)		(unknown)	(+insignificant)	(unknown)	(+insignificant)

## Wildlife:

Income	dollars	59,100	41,100	73,700	68,500	62,500
	(change)		(-18,000)	(+14,600)	(+9,400)	(+3,400)
Employment	jobs	4	2	5	5	4
	(change)		(-2)	(+1)	(+1)	no change
Tax Revenues	dollars	3,000	2,000	3,800	3,500	3,200
	(change)		(-1,000)	(+800)	(+500)	(+200)






TABLE 2-10 (Concluded)

<u>Environmental Component/Specific Indicator</u>	<u>Unit</u>	<u>Alternative A Total Quantity (Baseline)</u>	<u>Alternative B Total Quantity (Change)</u>	<u>Alternative C Total Quantity (Change)</u>	<u>Alternative D Total Quantity (Change)</u>	<u>Alternative E Total Quantity (Change)</u>
ECONOMIC CONSIDERATIONS (Continued)						
Other Land Uses:						
Income	dollars (change)	unquantified	unquantified (+insignificant)	unquantified (insignificant)	unquantified (-unknown)	unquantified (insignificant)
Employment	jobs (change)	unquantified	unquantified (+insignificant)	unquantified (insignificant)	unquantified (-unknown)	unquantified (insignificant)
Tax Revenues	dollars (change)	unquantified	unquantified (+insignificant)	unquantified (insignificant)	unquantified (-unknown)	unquantified (insignificant)
Plan Budget:						
Income	dollars (change)	494,000	583,000 (+89,000)	623,000 (+129,000)	558,000 (+64,000)	600,000 (+106,000)
Employment	jobs (change)	25	30 (+5)	32 (+7)	28 (+3)	30 (+5)
Land Disturbing Activities:						
Costs	dollars (change)	unquantified	unquantified (-unknown)	unquantified (+unknown)	unquantified (+unknown)	unquantified (+unknown)
SOCIAL CONSIDERATIONS						
Community:	lifestyle (change)	unquantified	unquantified no change	unquantified no change	unquantified (unknown)	unquantified no change
Individuals:	lifestyle (change)	unquantified	unquantified (insignificant)	unquantified (unknown)	unquantified (unknown)	unquantified (insignificant)

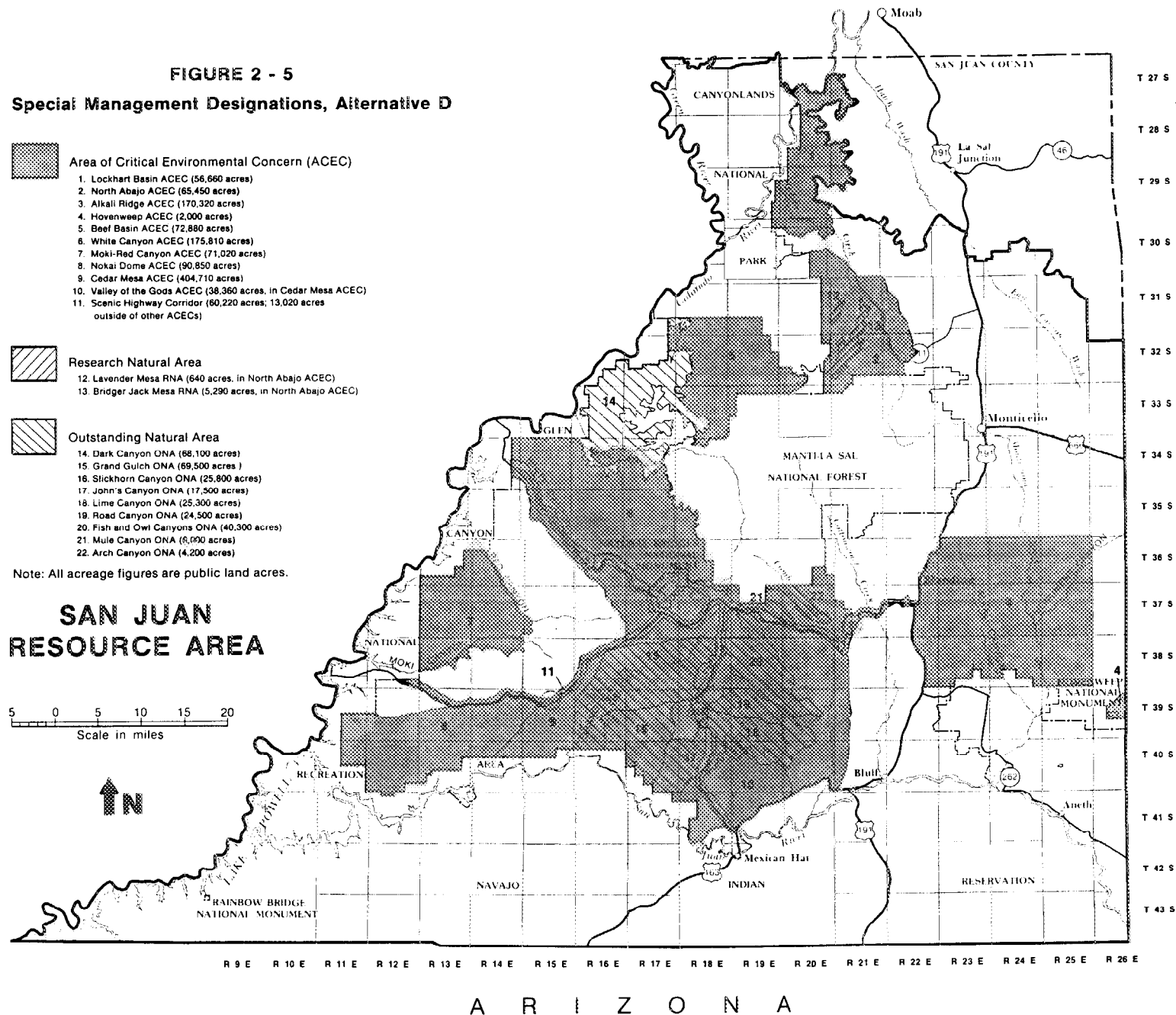
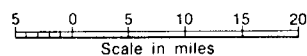
FIGURE 2 - 5

Special Management Designations, Alternative D

-  Area of Critical Environmental Concern (ACEC)
1. Lockhart Basin ACEC (56,660 acres)
  2. North Abajo ACEC (65,450 acres)
  3. Alkali Ridge ACEC (170,320 acres)
  4. Hovenweep ACEC (2,000 acres)
  5. Beef Basin ACEC (72,880 acres)
  6. White Canyon ACEC (175,810 acres)
  7. Moki-Red Canyon ACEC (71,020 acres)
  8. Nokai Dome ACEC (90,850 acres)
  9. Cedar Mesa ACEC (404,710 acres)
  10. Valley of the Gods ACEC (38,360 acres, in Cedar Mesa ACEC)
  11. Scenic Highway Corridor (60,220 acres; 13,020 acres outside of other ACECs)
-  Research Natural Area
12. Lavender Mesa RNA (640 acres, in North Abajo ACEC)
  13. Bridger Jack Mesa RNA (5,290 acres, in North Abajo ACEC)
-  Outstanding Natural Area
14. Dark Canyon ONA (66,100 acres)
  15. Grand Gulch ONA (69,500 acres)
  16. Stickhorn Canyon ONA (25,800 acres)
  17. John's Canyon ONA (17,500 acres)
  18. Lime Canyon ONA (25,300 acres)
  19. Road Canyon ONA (24,500 acres)
  20. Fish and Owl Canyons ONA (40,300 acres)
  21. Mule Canyon ONA (6,000 acres)
  22. Arch Canyon ONA (4,200 acres)

Note: All acreage figures are public land acres.

SAN JUAN  
RESOURCE AREA



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FIGURE 2 - 6

Special Management Designations, Alternative E

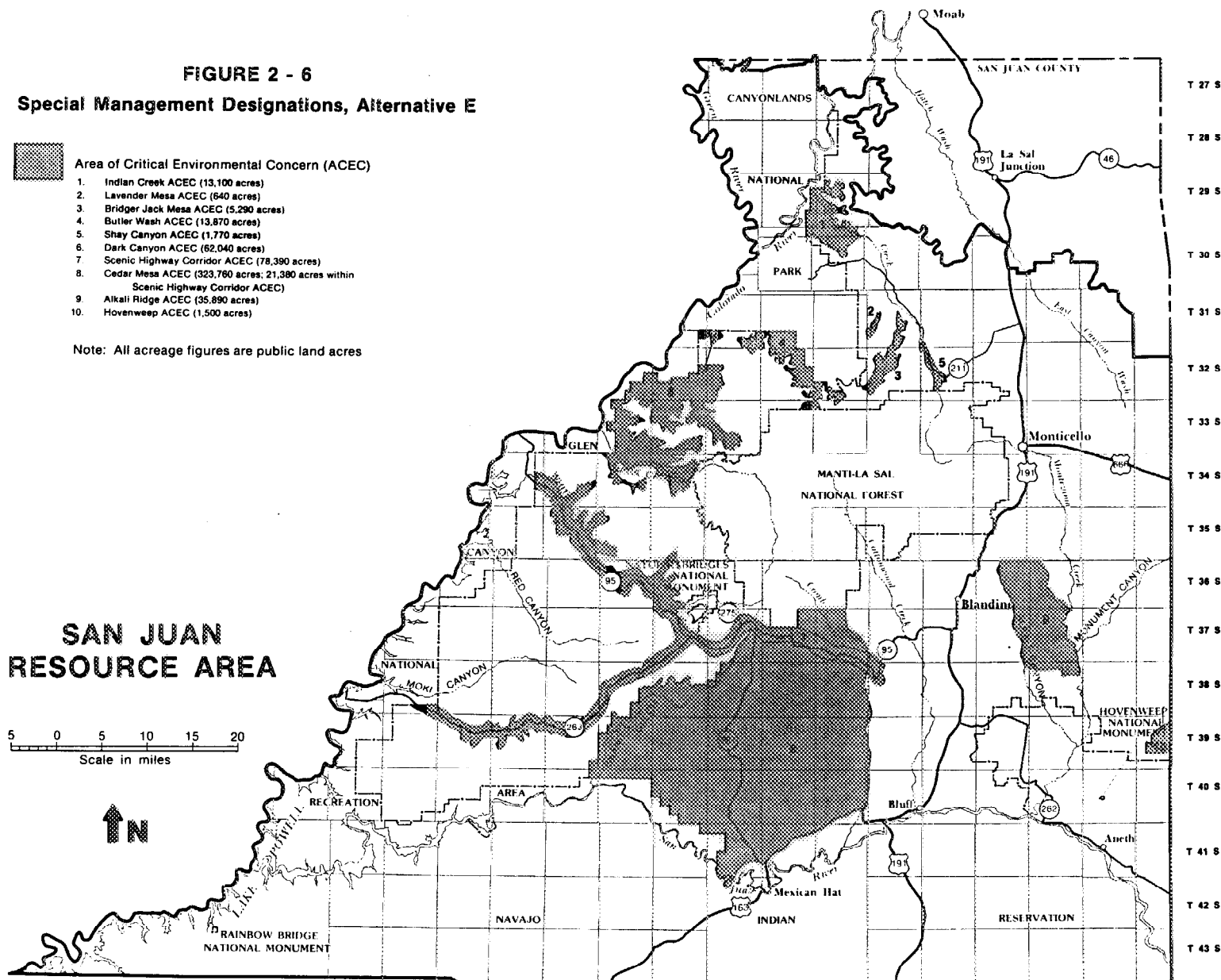
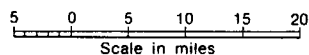


Area of Critical Environmental Concern (ACEC)

1. Indian Creek ACEC (13,100 acres)
2. Lavender Mesa ACEC (640 acres)
3. Bridger Jack Mesa ACEC (5,290 acres)
4. Butler Wash ACEC (13,870 acres)
5. Shay Canyon ACEC (1,770 acres)
6. Dark Canyon ACEC (62,040 acres)
7. Scenic Highway Corridor ACEC (78,390 acres)
8. Cedar Mesa ACEC (323,760 acres; 21,380 acres within Scenic Highway Corridor ACEC)
9. Alkali Ridge ACEC (35,890 acres)
10. Hovenweep ACEC (1,500 acres)

Note: All acreage figures are public land acres

SAN JUAN  
RESOURCE AREA



R 9 E R 10 E R 11 E R 12 E R 13 E R 14 E R 15 E R 16 E R 17 E R 18 E R 19 E R 20 E R 21 E R 22 E R 23 E R 24 E R 25 E R 26 E

A R I Z O N A

C O L O R A D O

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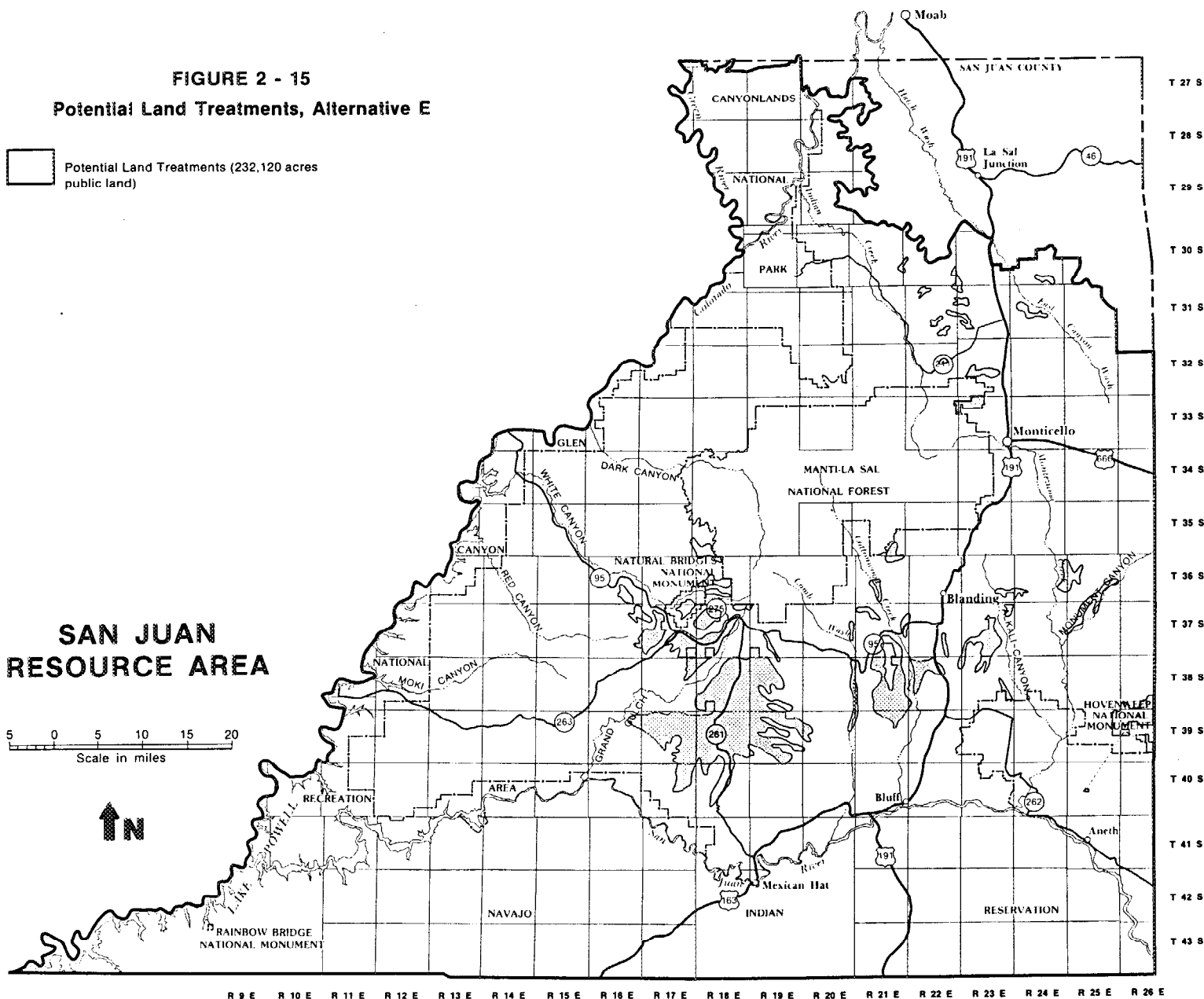
**FIGURE 2 - 15**  
**Potential Land Treatments, Alternative E**



Potential Land Treatments (232,120 acres public land)

**SAN JUAN  
 RESOURCE AREA**

5 0 5 10 15 20  
 Scale in miles



C O L O R A D O

A R I Z O N A

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## REVISIONS TO CHAPTER 3

### Page Revision

- 3-1 Column 2, paragraph 1 (beginning "within the White Canyon..."). Replace the last two sentences (beginning "The BLM is...") with "BLM considered changing the existing four-category system to a three-category system; the RMP team was directed to use the three-category system in the San Juan draft EIS. After reviewing agency and public comments on the three-category system, the Washington BLM staff has decided to continue with the four-category system. See BLM Manual Section 1624.21 A. 1. Accordingly, the proposed RMP and final EIS have been revised to show four oil and gas leasing categories (appendix L)."
- 3-7 Column 1, Geologic Potential for Oil and Gas Resources. Paragraph 1 (beginning "The eastern part..."), line 2. Replace "potential is unknown in the central and western portions." with "potential in the western and central portions of SJRA ranges from unknown to low to moderate." Line 6, delete "probable".
- 3-8 Table 3-3. The revised table is printed at the end of this section.
- 3-17 Column 1, Tar Sand. Paragraph 1 (beginning "Tar sand resources..."), line 3, after "SJRA" insert "; however, potential is completely unknown".
- 3-21 Column 1, paragraph 4 (beginning "Uranium/vanadium..."), line 4. Replace the third sentence (beginning "Lode claims...") with "In SJRA, most lode claims are located for uranium and most placer claims are located for gold."

### Page Revision

- 3-21 Column 2, paragraph 4 (beginning "Unpatented mining claims..."), line 6. Replace "management" with "involvement in the location process".
- 3-22 Table 3-4. For Federal Lands Within SJRA Boundary, change the subtotal for withdrawals from "1,738,220" to 1,738,270". For total, same column, replace "1,841,520" with "1,841,570".
- 3-23 Figure 3-6 should have shown the Dark Canyon Wilderness Area within Manti-LaSal NF (45,000 acres) as not open to entry. For the boundary of the wilderness area, please refer to Figure 1-1, page 1-7 of the draft EIS.
- 3-28 Column 1, paragraph 1 (beginning "resource is generally..."). After last sentence (ending "...visual range within an area") add "Visual range was measured from Canyonlands NP to be 121 miles, which is fairly consistent with other measurements made throughout the state [Aerocomp, Inc., 1984]."
- 3-33 Column 1, paragraph 4 (beginning "Most of..."), line 4, replace "oil and gas" with "minerals".
- 3-33 Column 2, paragraph 2 (beginning "Soils in..."), line 11, after "...100-year floods." insert "In addition, there are stream channels in canyons and washes which are subject to flooding during any intense local storm, but which were not identified on figure 3-9 due to their small size or narrowness (acreage unquantified)."



Page Revision

- 3-37 Column 1, paragraph 2 (beginning "The salinity level..."), line 9, after "million" insert "(p/m) in its virgin state". Line 10, after "1975]." insert "Due to the flushing and filling of major reservoirs, salinity levels at Imperial Dam (the last major diversion point along the Colorado River in the U.S.) have gone from an annual average of 826 p/m in 1972 to 710 p/m in 1983, and to 670 p/m in 1984 [BOR 1985b]. Even so, the TDS at Imperial Dam is projected to reach about 1,005 p/m by the year 2010, well above the numeric criterion level of 879 p/m [BOR 1985b]."
- 3-37 Column 2, replace paragraph 1 (beginning "Five plant...") with "The plants listed in table 3-5A are known to occur within SJRA and are being reviewed by USFWS for possible addition to the list of Endangered and Threatened Plants, compiled under the Endangered Species Act of 1973." (Table 3-5A is printed at the end of this section.)
- 3-38 Column 1, paragraph 3 (beginning "Forest resources..."), line 3, replace "incidental" with "additional".
- 3-38 Column 2, paragraph 3 (beginning "Areas that are excluded..."), line 7, replace "1,504,550" with "1,505,910".
- 3-41 Column 1, Wildlife, General. Paragraph 1 (beginning "Many terrestrial..."), line 3, replace "The BLM manages" with "Current BLM management emphasis is on". Last line (after "...riparian/aquatic habitat."), insert "No specific management programs are currently in effect for other wildlife species, although they use habitat areas within SJRA."
- 3-41 Column 1, Wildlife, General. Paragraph 2 (beginning "Known T/E species..."), line 2, replace "certain fish in the San Juan River" with "Colorado squawfish".

Page Revision

- 3-41 Column 1, Wildlife, General. Paragraph 3 (beginning "Use of..."), last line, after "(UDWR)." insert "BLM is a member of the state Board of Big Game Control's Inter-agency Committee, which develops game hunting rules and regulations."
- 3-42 Column 2, Pronghorn Antelope. Paragraph 2 (beginning "Antelope prefer..."), line 6. After the second sentence (ending "in these areas."), insert "The limited competition that occurs is for spring grasses and forbs. Some competition occurs for water because of its limited availability."
- 3-45 Figure 3-12. In the legend, replace "Deer Yearlong Habitat" with "Deer Habitat".
- 3-49 Column 1, Deer. Paragraph 4 (beginning "Deer population..."), line 4, after first sentence insert "The prior stable population (or UDWR long-term herd management goal) for deer within SJRA is estimated at 40,000; the estimated current population for deer is 12,760 animals."
- 3-49 Column 2, Riparian and Aquatic Habitats. Paragraph 1 (beginning "Streams..."), line 2, replace "480" with "500". Line 6, replace "1,500" with "6,000". Line 8, replace "25" with "100". Line 8, replace "waterways" with "drainages".
- 3-51 Table 3-6. After Red Canyon (last area listed), insert the following: Area: White Canyon; Total Miles: 20; BLM Miles: 20; Allotment: White Canyon; Conflicts: L. For TOTALS, replace "633" with "653"; replace "481" with "501".
- 3-52 Column 2, paragraph 1 (beginning "The current..."), line 10, after "Canyonlands NP" insert: "and two have been found along Lake Powell within Glen Canyon NRA".
- 3-52 Column 2, paragraph 3 (beginning "The San Juan River..."), lines 3 and 8, replace "humpback sucker" with "razorback sucker".

Page Revision

- 3-53 Column 1, Human Uses, Grazing. Paragraph 3 (beginning "The SJRA administers..."), line 1. Replace "69" with "70". Line 2, replace "58" with "59".
- 3-53 Column 2, paragraph 3 (beginning "The BLM nas..."), line 6, replace "1972 and 1984]" with "1984 and 1986]".
- 3-54 Column 1, last paragraph (beginning "All grazing..."), lines 11 and 12, replace "8" with "10"; replace "29" with "30". Lines 12, 13 and 14, replace "percent of SJRA" with "percent of SJRA allotment acreage" (this appears three times).
- 3-54 Column 2, paragraph 1 (beginning "Ecological condition..."), line 7, replace "condition" with "trend".
- 3-55 Figure 3-14, Grazing Allotments. This figure omitted a 100-acre parcel in the northwest section of Hovenweep NM, which is part of Allotment 6811 (W/2 NE/4 and N/2 NW/4 SE/4, Section 21, T. 39 S., R. 26 E., SLB&M). The parcel would be grazing category I. The figure is reprinted at the end of this section, to show other allotment changes and to correct this error.
- 3-57 Column 2, paragraph 2 (beginning "Monitoring will..."), replace the third sentence (beginning "However,...") with "This statement is based on professional judgment and assumes that grazing systems and maintenance of existing seedings would be used to produce this quantity of forage." In the same paragraph, last line, replace "increase livestock forage production" with "produce additional livestock forage."
- 3-58 Column 1, paragraph 3 (beginning "Season of use..."), line 11, after "range." insert the following:
- Therefore, the desirable plants are not rested from grazing even with minimal stocking rates. If these and other plants do not receive periodic seasonal rest from

Page Revision

- grazing, plant vigor will decline and the plant will eventually die.
- 3-58 Column 2, paragraph 4 (beginning "Cattle and..."), line 1, after "desert bighorn sheep" delete "or antelope". In the same paragraph, line 7, after "vegetation treatments" insert "or increased livestock use".
- 3-58 Column 2, before "Specific Indicators Affected", insert a new paragraph: "Some competition occurs between cattle and antelope for spring grasses and forbs and for the limited availability of water."
- 3-59 Table 3-7, Livestock Manipulation Techniques. Alphabetically insert "Cottonwood, 33,300"; for Lone Cedar, replace "4,460" with "2,970"; and for Tank Bench-Brushy Basin, replace "94,000" with "60,700".
- 3-59 Table 3-7, Vegetation Treatments. Alphabetically insert "Cottonwood, 9,320" and "Tank Draw, 1,490"; for Tank Bench-Brushy Basin, replace "14,780" with "5,460".
- 3-60 Column 2, paragraph 5 (beginning "BLM evaluates..."), revise paragraph to read "BLM manages cultural resources according to three objectives: informational potential, public values, and conservation."
- 3-65 Column 1, paragraph 1 (beginning "figure 3-15..."), line 2, replace "uses" with "objectives".
- 3-65 Column 1, paragraph 3 (beginning "The North Abajo area..."), line 9, delete "for future use"; replace "public use" with "public values".
- 3-65 Column 1, paragraph 4 (beginning "The Alkali Ridge-..."), line 11, replace "potential scientific use and management use" with "informational potential for cultural resources".

Page Revision

- 3-65 Column 2, paragraph 2 (beginning "South of the Alkali..."), line 3, delete "The Square Tower ruin is within a 400-acre unit of the NM."
- 3-65 Column 2, paragraph 3 (beginning "The Grand Gulch..."), last two lines, replace "potential scientific and public use." with "informational potential and public values for cultural resources."
- 3-70 Table 3-11. The revised table is printed at the end of this section.
- 3-79 Column 2, paragraph 2 (beginning "Beef Basin is..."), line 9, replace "deer, and trapping mountain lion," with "deer and mountain lion, and trapping".
- 3-80 Column 2, Visual Resources. Paragraph 1 (beginning "The SJRA lies..."), line 3, after "value." insert "The primary results of a recent study sponsored by the Utan Tourism Research Consortium conclude that 'tourists visiting Utan are most impressed with the state's scenic beauty' and that '50 percent of visitors said Utan was their primary destination or final destination' [Comment letter 9, Southern Utah Wilderness Alliance]."
- 3-81 Column 1, paragraph 5 (beginning "In the late..."), line 5. Replace "The group... these highways" with "The U-95 Highway Corridor Study states: Preservation of the visual corridor is a vital issue in consideration of any use, management, or development scheme for the area. Picturesque views of a natural canyonlands landscape are continuous along the highways. Visual elements within the corridor and the vistas beyond are threatened if uncontrolled or ill-planned development encroaches [BLM, et al., 1978]."
- 3-81 Column 1, paragraph 5 (beginning "In the late 1970s..."), after the last sentence insert "The U-95 Corridor Study has been used as a guide for BLM decisions affecting the visual corridor along the highway."

Page Revision

- 3-81 Column 2, Revise table 3-14 as follows.
- | <u>Class</u>   | <u>Acres</u> |
|----------------|--------------|
| Class I.....   | 99,850       |
| Class II.....  | 552,460      |
| Class III..... | 560,070      |
| Class IV.....  | 566,810      |
- Source: BLM records.
- 3-83 Figure 3-18. The revised figure is printed at the end of this section.
- 3-87 Column 1, after paragraph 2 (ending "...the planning process.") insert "An existing 80 acre desert land entry (DLE) application, filed in 1968, will be considered in this RMP/EIS."
- 3-91 Column 1, Demographics. Paragraph 1 (beginning "The 1985..."), line 4, replace "western" with "eastern".
- Column 2, Employment and Income. Paragraph 2 (beginning "Mining remains..."), line 2, replace "19" with "17".
- 3-96 Table 3-19. The revised table is printed at the end of this section.
- 3-98 Column 1, Livestock. Paragraph 2 (beginning "The SJRA..."), line 7, replace "58" with "59". Line 9, replace "Fifty-three" with "Fifty-four". Line 11, replace "52" with "53". Line 12, replace "24" with "25".
- 3-98 Column 1, paragraph 3 (beginning "Of the..."), line 1, replace "53" with "54".
- 3-100 Column 1, paragraph 3, line 13, replace "15" with "8".



TABLE 3-3

## Known Geologic Structures and Oil and Gas Field Production Statistics

	Known Geologic Structures San Juan Resource Area	Other Published Field Names	Approximate Location	Date of Discovery	Public Land Acres	Status (3/1/85)	1986 Production		Cumulative Production (as of 04/87)	
							Oil (barrels)	Gas (MCF)	Oil (barrels)	Gas (MCF)
1	Alkali Canyon <sup>a</sup>		T37S,R23-24E	1965	6,750	Producing	0	0	42,049	143,605
2	Aneth	Includes Bluff Field	T39-42S, R23-25E	1956	<sup>b</sup> 11,256	Producing	6,047,148	5,310,813	210,913,555	194,824,528
3	Black Steer <sup>c</sup> Canyon		T39S,R25E	1984	640	Producing	N/A	N/A	737,720	1,352,194
4	Bluff Bench I <sup>d</sup>		T40S,R22E	1957	40	Abandoned	0	0		
5	Bluff Bench II <sup>d</sup>		T40S,R22E	1957	40	Abandoned	0	0	16,436	7,526
6	Bluff Bench III		T40S,R21E	1959	40	Abandoned	0	0		
7	Bradford Canyon		T37S,R24E	1982	1,920	Producing	3,634	17,078	26,158	186,828
8	Broken Hills		T40S,R22E	1959	1,720	Producing	2,039	656	99,767	54,990
9	Bug		T35-36S,R26E	1980	4,659	Producing	192,768	333,602	1,293,881	2,414,060
10	Cave Canyon <sup>c</sup>		T37-38S,R24E	1984	925	Producing	N/A	N/A	447,027	362,983
11	Cowboy		T39S,R22E	1968	840	Producing	5,769	0	150,332	108
12	Grayson		T38S,R22E	1961	40	Abandoned	0	0	6,441	5,331
13	Horsehead Point <sup>c</sup>		T36S,R25E	1984	2,490	Shut-In	N/A	N/A	0	3,500
14	Mexican Hat		T42S,R19E	1908	843	Producing	6,664	0	64,184	1,548
15	Mustang		T36S,R33E	1982	1,760	Producing	829	20,690	279,643	2,371,265
16	North Lisbon	Lisbon	T29-30S,R24E	1960	7,358	Producing	629,493	20,117,430	47,426,260	455,687,776

17	Patterson Canyon	Little Nancy	T37-38S,R25E	1974	8,133	Producing	42,928	193,550	299,479	1,119,840
18	Recapture Creek		T40S,R23E	1956	1,760	Producing	49,391	154,398	1,957,294	2,967,997
19	Squaw Canyon	Tin Cup Mesa	T38S,R25-26E	1980	4,800	Producing	32,201	92,918	282,351	621,475
20	Turner Bluff I		T40S,R22-23E	1957	1,741	Producing	28,070	11,440	583,776	355,705
21	Turner Bluff III		T40S,R22-23E	1963	359	Producing	18,496	14,230	104,030	54,820
22	Unnamed	Little Valley	T30S,R25E	1961	840	Producing	9,309	1,029,204	210,759	12,644,250
23	Unnamed <sup>e</sup>	SW Lisbon	T30-31S,R24E	1981	292	Shut-In	0	0	522	0
24	Unnamed <sup>f</sup>	Johnson Ck.	T35S,R22E	1983	240	Abandoned	0	0	425	0
25	Unnamed	Hatch	T38S,R24E	1957	360	Abandoned	0	0	15,446	40,891
26	Unnamed	Black Mesa	T39S,R21E	1962	40	Abandoned	0	0	2,640	0
27	Unnamed <sup>g</sup>	Hovenweep	T39S,R25E	1981	1,440	Shut-In	0	0	0	0
28	Unnamed <sup>h</sup>	Lime Ridge	T40S,R20E	1958	40	Abandoned	N/A	N/A	N/A	0
29	Unnamed <sup>i</sup>	Butler Wash	T40S, R21E	1959	40	Abandoned	0	0	603	0
TOTALS					61,406		7,068,739	27,296,009	264,960,778	675,221,220

NOTE: MCF = 1,000 cubic feet.

<sup>a</sup>Field back on production, March 1984.

<sup>b</sup>Total KGS is 69,584 acres; 11,256 acres are on public lands managed by SJRA, and 58,328 acres are on the Navajo Indian reservation and managed by the Farmington Resource Area, Albuquerque District, BLM.

<sup>c</sup>Cumulative production as of January 1985, since field discovery.

<sup>d</sup>Combined cumulative production.

<sup>e</sup>One-well oil field; initial production 12 barrels per day.

<sup>f</sup>One-well oil field; initial production 6 barrels per day.

<sup>g</sup>Gas field never produced; initial production 4.7 million cubic feet per day.

<sup>h</sup>Never produced; high CO<sub>2</sub> potential; initial production 1.45 million cubic feet of gas per day.

<sup>i</sup>Field watered out.

Sources: DOGM, 1987; Riggs, 1978; and internal BLM oil and gas records.

TABLE 3-5A

## Threatened and Endangered Plants and Species Under Review in SJRA

<u>Plant Taxon</u>	<u>USFWS Status<sup>a</sup></u>
<u>Echinocereus triglochidiatus</u> var. <u>inermis</u>	Endangered
<u>Ascleoias cutleri</u>	Category 2
<u>Astragalus cronquistii</u>	Category 2
<u>Cymopterus beckii</u>	Category 2
<u>Dalea flavescens</u> var. <u>epica</u>	Category 2
<u>Erigeron kachinensis</u>	Category 2
<u>Eriogonum humivagans</u>	Category 2
<u>Penstemon navahoa</u>	Category 2
<u>Astragalus piscator</u>	b

<sup>a</sup>Status category (see glossary) as assigned by the USFWS.

<sup>b</sup>Species proposed for listing too recently to have been categorized.

Source: Federal Register, Vol. 50 No. 188 p. 39526-39584 (Sept. 27, 1985).

TABLE 3-9

## Proposed Cultural Resource Use Zones

<u>Area</u>	<u>Approximate Acres</u>	<u>Approximate % of SJRA</u>	<u>Management Objectives</u>
North Abajo	275,000	16	Informational potential Public values
Monticello-Blanding	500,000	28	Informational potential
Grand Gulch Plateau SRMA	400,000	22	
Grand Gulch			
Archaeological District	(5,000)	(less than 1)	Informational potential Public values
Remainder of Grand Gulch Plateau SRMA	(395,000)	(22)	Conservation Public values
Southwest Abajo	440,000	25	Informational potential
West Abajo	165,000	9	
Dark Canyon	(102,500)	(6)	Informational potential
Fable Valley	(2,500)	(less than 1)	Conservation
Beef Basin	(60,000)	(3)	Informational potential Public values
APPROXIMATE TOTAL	<u>1,780,000</u>	<u>100</u>	

NOTE: Acreages include only BLM administered public lands. Numbers in parentheses are components of area total.



TABLE 3-11

## Recreation Opportunity Spectrum Classes, by Area

<u>Area</u>	<u>Primitive</u>	<u>Semiprimitive Nonmotorized</u>	<u>Semiprimitive Motorized</u>	<u>Roaded Natural</u>	<u>Rural</u>	<u>Urban</u>	<u>Area Total</u>
<u>Existing SRMAs</u>							
San Juan River SRMA	0	0	9,830	5,100	130	40	15,100
Grand Gulch Plateau SRMA	69,700	195,600	37,200	82,500	0	0	385,000
Dark Canyon SRMA	38,550	23,490	0	0	0	0	62,040
San Juan Extensive RMA	<u>90,270</u>	<u>293,370</u>	<u>291,630</u>	<u>626,910</u>	<u>14,590</u>	<u>280</u>	<u>1,317,050</u>
TOTAL EXISTING	198,520	512,460	338,660	714,510	14,720	320	1,779,190
<u>Potential SRMAs</u>							
Canyon Basins SRMA <sup>a</sup>	59,040	79,120	64,370	11,960	0	0	214,490
Montezuma Creek SRMA	<u>0</u>	<u>0</u>	<u>0</u>	<u>5,300</u>	<u>0</u>	<u>0</u>	<u>5,300</u>
SUBTOTALS	59,040	79,120	64,370	17,260	0	0	219,790
Revised San Juan Extensive RMA <sup>b</sup>	<u>69,780</u>	<u>237,740</u>	<u>238,260</u>	<u>598,650</u>	<u>14,590</u>	<u>280</u>	<u>1,159,300</u>
TOTALS	128,820	316,860	302,630	615,910	14,590	280	1,379,090
TOTAL PROPOSED	198,520	512,460	349,660	703,510	14,720	320	1,779,190

<sup>a</sup>Acres include the existing Dark Canyon SRMA.

<sup>b</sup>Represents the remaining acreage. The total acres for potential SRMAs plus the acreage for the revised San Juan Extensive RMA equals the acreage of the existing San Juan Extensive RMA given above.

TABLE 3-19

**Local Employment and Income, by Economic Activity**  
(by place of employment)

<u>Economic Activity</u>	<u>Direct, Indirect, and Induced Effects</u>			
	<u>San Juan County</u>		<u>San Juan Resource Area</u>	
	<u>Income</u> <u>(dollars)</u>	<u>Employment</u> <u>(jobs)</u>	<u>Income</u> <u>(dollars)</u>	<u>Employment</u> <u>(jobs)</u>
Oil and gas	13,226,000	535	5,290,000	214
Locatable minerals <sup>a</sup>	13,366,000	432	1,045,000	36
Salable minerals	1,091,000	47	881,000	38
Livestock grazing	1,392,000	250	1,013,000	176
Recreation use	4,424,000	323	246,000	18
Wildlife use	<u>133,000</u>	<u>10</u>	<u>59,000</u>	<u>4</u>
TOTAL	33,632,000	1,597	8,534,000	486


<sup>a</sup>Includes uranium/vanadium, gold, and mining claim assessment activities.


Sources: BLM records; USFS, 1982; BEA, 1984a; BEA, 1984b; Jensen and Parks, 1985.


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**FIGURE 3 - 14**  
**Grazing Allotments**


4811 Grazing Allotment Number (Names given in Appendix O)


 Grazing Category I

 Grazing Category M

 Grazing Category C

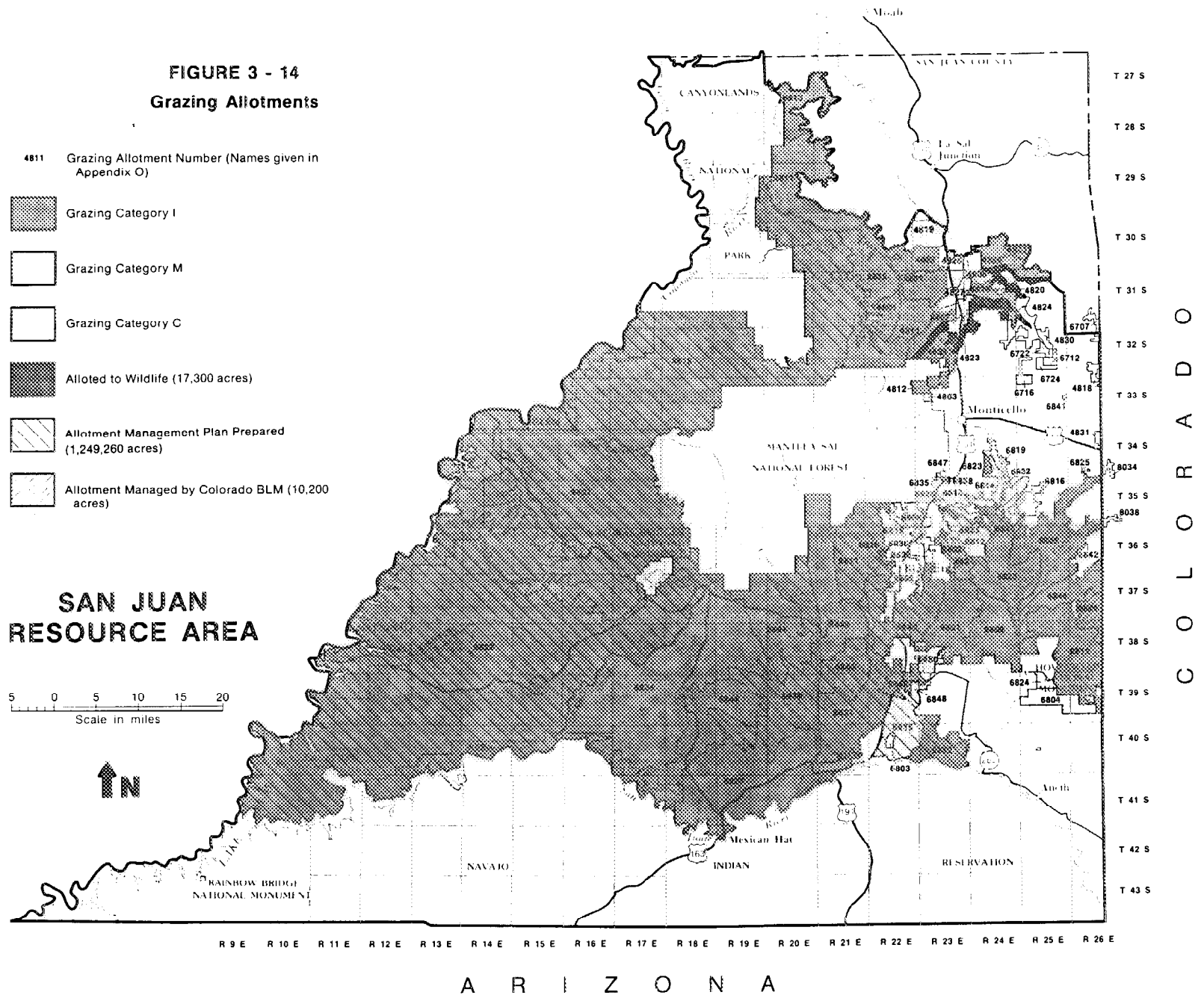
 Allotted to Wildlife (17,300 acres)

 Allotment Management Plan Prepared (1,249,260 acres)

 Allotment Managed by Colorado BLM (10,200 acres)





**SAN JUAN  
RESOURCE AREA**

5 0 5 10 15 20  
Scale in miles



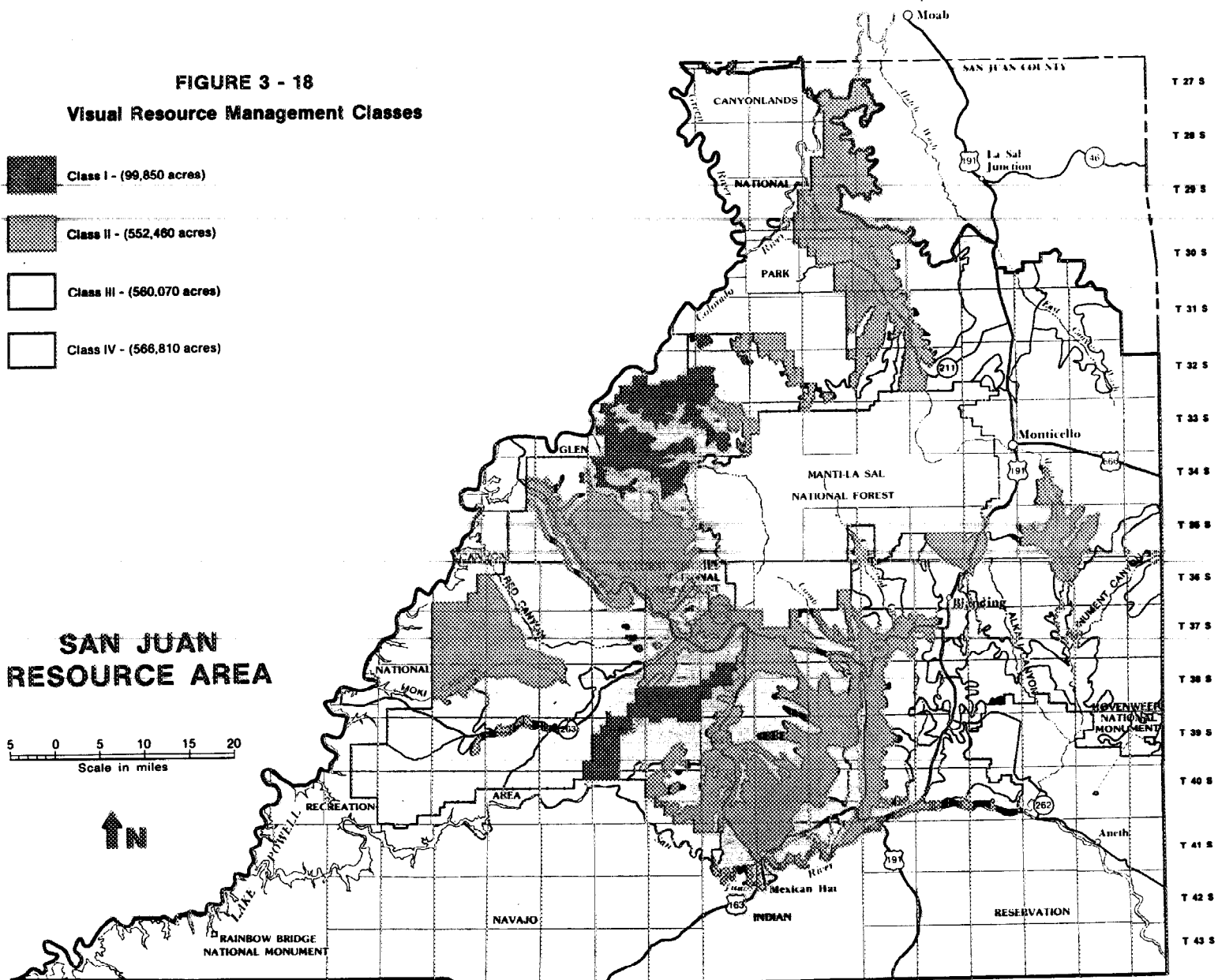
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**FIGURE 3 - 18**  
**Visual Resource Management Classes**

-  Class I - (99,850 acres)
-  Class II - (552,460 acres)
-  Class III - (560,070 acres)
-  Class IV - (566,810 acres)

**SAN JUAN  
 RESOURCE AREA**

5 0 5 10 15 20  
 Scale in miles



R 9 E R 10 E R 11 E R 12 E R 13 E R 14 E R 15 E R 16 E R 17 E R 18 E R 19 E R 20 E R 21 E R 22 E R 23 E R 24 E R 25 E R 26 E

A R I Z O N A

C O L O R A D O

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## REVISIONS TO CHAPTER 4

### Page Revision

- 4-2 Column 1, paragraph 1 (beginning "...possible exception"), line 5, after "management" insert "due to implementation of land treatments".
- 4-4 Table 4-1, Water, column 2, before "Sediment rates..." insert: "Federal and state water quality standards for beneficial uses."
- 4-4 Table 4-1, Vegetation, column 1, change "T/E species habitat" to "T/E species". In column 2, replace "loss of any habitat" with "any impact to listed species or their habitat".
- 4-5 Table 4-1, Wildlife, column 1, insert "Wildlife habitat" to line up with "Not quantified...". In column 1, insert "T/E species", and in column 2, insert "any impact to listed species or their habitat".
- 4-5 Table 4-1, Cultural Resources. Revise the threshold description to read: "Untreated disturbance to or loss of cultural properties whereby a specific cultural resource management objective cannot met."
- 4-7 Column 2, paragraph 2 (beginning "It was assumed..."), line 3. Replace "assessment work" with "any surface-disturbing activity".
- 4-7 Column 2, paragraph 3 (beginning "For grazing uses..."), line 4, replace "10,800" with "1,080"; line 5, after "treatable" insert "(appendix X)".
- 4-7 Column 2, Mineral Components, Oil and Gas, Impacts. Paragraph 2 (beginning "In the

### Page Revision

- SJRA"), line 1, replace "1,508,310" with "891,310". Line 3, replace "891,310 acres" with "this area".
- 4-8 Column 1, at the beginning of paragraph 2 (beginning "Special lease conditions"), insert "Under category 2,".
- 4-8 Column 1, paragraph 4 (beginning "The SJRA contains..."), line 1, replace "category 2" with "category 3"; line 3, replace "category 3" with "category 4"; line 4, replace "Category 2" with "Category 3". Line 7, after "industry" insert "and restricts the possibility for exploration, development, and production of the leasehold"; replace "Category 3" with "Category 4". Line 14, replace "category 2" with "category 3"; lines 17 and 18, replace "categories 2 and 3" with "categories 3 and 4".
- 4-8 Column 2, Coal, Impacts. Paragraph 1 (beginning "About 212,000 acres..."), line 6, after "area" insert ", although all of SJRA would be available for coal exploration". Line 7, after "therefore, no" insert "exploration,".
- 4-9 Column 2, Locatable Minerals, Impacts. Paragraph 1 (beginning "Most of the SJRA..."), line 1, replace "1,674,840" with "1,674,480".
- 4-10 Column 1, paragraph 2 (beginning "If 2,880 acres..."), line 5. Replace "regulations do not provide" with "there are presently no regulations to provide".



Page Revision

and gas resources in SJRA. Under this alternative, 1,768,740 acres would be placed in category 1, an increase of 877,430 acres (98 percent). Category 2 would contain 6,540 acres with special conditions (a decrease of 610,630 acres, or 99 percent). The acreage in category 2 is small enough that it would not adversely affect oil and gas exploration and development.

- 4-22 Column 1, paragraph 3 (beginning "Category 2..."), line 1, replace "2" with "3".
- 4-22 Column 1, paragraph 4 (beginning "The impacts to..."), line 2, after "alternative A" insert ", except that operations on 9,090 acres would have special conditions attached, a decline of less than 1 percent."
- 4-22 Column 2, paragraph 1 (beginning "acres would be..."), line 2, replace "1,775,280" with "1,768,740"; line 3, replace "2,550" with "6,540"; after "category 2;" insert "2,550 acres would be in category 3;"; line 4, replace "3" with "4".
- 4-22 Column 2, Coal, Impacts. Paragraph 1 (beginning "Under this alternative..."), after the last sentence, insert "Coal exploration would be limited to methods that leave no surface disturbance on 2,550 acres (less than 1 percent of SJRA)."
- 4-24 Column 2, Conclusion. Paragraph 1 (beginning "Surface water..."), line 1, replace "decrease" with "be degraded".
- 4-25 Column 1, Table 4-4. Climax: replace "9" with "8" and "18" with "11"; Late Seral: replace "23" with "22" and "21" with "24"; Mid Seral: replace "28" with "31"; Early Seral: replace "12" with "11"; Rock outcrop/roadlands: replace "21" with "23" twice.
- 4-26 Column 1, paragraph 1, line 6, replace "23,510" with "23,410".

Page Revision

- 4-26 Column 1, paragraph 8 (beginning "the population of deer..."), line 4, replace "181,170" with "175,540"; line 5, replace "10,750" with "16,380" and replace "56" with "8".
- 4-26 Column 2, paragraph 7 (beginning "The area of..."), line 2, replace "1,440" with "6,000"; replace "20" with "80".
- 4-26 Column 2, paragraph 8 (beginning "Protective conditions"), line 4, replace "30" with "120".
- 4-27 Column 1, paragraph 1 (beginning "An increase in..."), line 2, replace "30" with "120".
- 4-27 Column 1, Conclusion. Paragraph 1 (beginning "The desert bighorn..."), line 8, replace "10,750" with "16,380". In the same paragraph, last line, replace "1,440" with "6,000".
- 4-27 Column 1, Human Uses, Grazing, Impacts. Paragraph 1 (beginning "Under alternative B"), line 5, replace "89" with "92".
- 4-27 Column 1, Human Uses, Grazing, Impacts. Paragraph 3 (beginning "In addition..."), line 1, replace "22" with "23". Line 2, replace "31" with "34".
- 4-27 Column 2, paragraph 2 (beginning "Season of use..."), line 1, replace "4" with "6".
- 4-27 Column 2, Conclusion. Paragraph 2 (beginning "Livestock forage..."), replace "96,716" with "97,504" and replace "39,981" with "40,769".
- 4-28 Column 2, Visual Resources, Conclusion. Paragraph 1 (beginning "The area in..."), line 4, replace "533,060" with "562,370".
- 4-29 Column 1, Lands, Impacts. Paragraph 2 (beginning "Lands available..."), line 2, replace "1,390" with "1,310"; replace "48" with "44".

Page Revision

- 4-10 Column 1, paragraph 5 (beginning "Areas open to..."), line 1. Replace "are subject to production" with "are open to surface disturbance".
- 4-13 Column 1, Conclusion. Paragraph 1 (beginning "Surface water..."), line 2, replace "decrease" with "be degraded".
- 4-13 Column 2, Table 4-2, Climax: replace "9" with "8" and "11" with "9"; Late Seral: replace "23" with "22" and "21" with "22"; Early Seral: replace "14" with "13"; Rock outcrop/badlands: replace "21" with "23" twice.
- 4-14 Column 1, Wildlife, Impacts. Paragraph 2 (beginning "Assuming a..."), line 1, replace "per year" with "by the year 2000".
- 4-14 Column 1, revise paragraph 3 (beginning "-livestock grazing...") to read as follows:
- livestock grazing at current levels, while not causing a population loss by 2000, may result in competition for forage and space on wintering areas, if both species occupy these areas at the same time.
- 4-14 Column 2, paragraph 4 (beginning "Assuming a..."), line 1, replace "per year" with "by the year 2000".
- 4-14 Column 2, last paragraph (beginning "Assuming a..."), line 1, replace "per year" with "by the year 2000".
- 4-15 Column 1, paragraph 7 (beginning "The riparian/..."), line 8, replace "1,440" with "6,000"; replace "1,460" with "6,080"; replace "20" with "80".
- 4-15 Column 2, paragraph 1 (beginning "Livestock exclusions..."), line 2, replace "10" with "40"; line 6, replace "40" with "170".

Page Revision

- 4-15 Column 2, paragraph 2 (beginning "The increase..."), line 2, replace "30" with "120".
- 4-15 Column 2, Conclusion. Paragraph 1 (beginning "Desert bighorn..."), line 12, replace "1,440" with "6,000"; replace "1,460" with "6,080".
- 4-15 Column 2, Human Uses, Grazing, Impacts. Paragraph 1 (beginning "Under this..."), line 3, replace "67" with "70".
- 4-16 Column 2, paragraph 2 (beginning "Given the current..."), line 5, delete "all of"; last line, replace "seven" with "three"; replace "categories." with "objectives."
- 4-18 Column 2, Lands, Impacts. Paragraph 2 (beginning "The lands proposed..."), line 3, after "(MFPs)" replace "or" with ",". Line 5, after "classification" insert "or in existing applications where land disposal may be imminent". Line 7, replace "2,880" with "2,960".
- 4-19 Column 1, Conclusion. Paragraph 2 (beginning "A total of..."), line 1, replace "2,880" with "2,960".
- 4-21 Column 1, Other Land Uses. Delete paragraph 2 (beginning "The cost of...").
- 4-21 Column 1, Conclusion. Paragraph 1 (beginning "Recreation related..."), delete the last sentence (beginning "Utility corridors would...").
- 4-21 Column 2, Assumptions. Paragraph 4 (beginning "It was assumed that there..."), line 3, replace "mineral materials." with "minerals not discussed."
- 4-22 Column 1, Mineral Components, Oil and Gas, Impacts. Replace paragraph 2 (beginning "Alternative B offers...") with the following:

Alternative B offers the least restrictive management concerning development of oil

Page Revision

- 4-29 Column 1, Conclusion. Paragraph 2 (beginning "The amount..."), line 2, replace "1,390" with "1,310".
- 4-29 Column 2, Livestock Grazing. Last paragraph, replace the last sentence (beginning "Because forage..." and continuing onto the next page) with the following:
- Forage from the new allotments would be used by either new or existing livestock operators. Use of these new allotments was not included in the assessment of impacts to existing operators because it was not known whether they would be affected; however, this use was included in the local employment, income, and tax revenue estimates.
- 4-30 Column 1, paragraph 2 (beginning "The spring..."), line 2, replace "67" with "69".
- 4-30 Column 2, paragraph 3 (beginning "Any grazing permit..."), line 16, replace "52" with "54". Line 17, replace "3 percent" with "4 percent".
- 4-31 Table 4-5, under Operators Not Affected, change "10" to "12". This appears three times in this column.
- 4-32 Column 2, paragraph 1 (beginning "an estimated"), line 1, replace "28" with "30"; replace "\$550,000" with "\$583,000".
- 4-32 Column 2, Conclusion. Paragraph 1 (beginning "Assumed coal..."), line 17, after "generate" insert "an additional"; replace "3 joos" with "5 joos"; line 18, replace "\$56,000" with "\$89,000".
- 4-33 Column 2, paragraph 2 (beginning "It was assumed that there..."), line 3, replace "other mineral." with "other minerals not discussed."
- 4-33 Column 2, Mineral Components, Oil and Gas, Impacts. Paragraph 2 (beginning "Under alternative C..."), line 1, replace

Page Revision

- "1,066,600" with "383,560"; line 2, replace "441,880" with "507,750"; line 3, replace "29 percent" with "57 percent". Revise the second sentence (beginning "Of the...") to read "Category 2 acreage with special conditions would be 683,040 acres, an increase of 65,870 acres (11 percent)."
- 4-33 Column 2, Mineral Components, Oil and Gas, Impacts. Paragraph 3 (beginning "The special..."), line 8, after "Alkali Ridge" insert "and Scenic Highway Corridor"; replace "ACEC" with "ACECs".
- 4-34 Column 1, paragraph 3 (beginning "Under this alternative..."), line 2, replace "2" with "3"; line 10, revise the sentence beginning "The Squaw..." to read "The Squaw and Cross Canyon area in the Blanding Basin would be managed to protect P and SPNM ROS class areas."
- 4-34 Column 1, Paragraph 4 (beginning "Compared to..."), line 4, replace "680,850" with "683,040".
- 4-34 Column 2, paragraph 1 (beginning "Under alternative C..."), line 2, replace "387,110" with "384,920"; line 4, replace "1,392,080" with "1,394,270".
- 4-34 Column 2, Conclusion. Paragraph 1 (beginning "The area..."), revise second sentence to read "The area available under category 1 would decrease by 507,750 acres to 383,560 acres, and the area available under category 2 with special conditions would increase by 65,870 acres to 683,040 acres." In the third sentence (line 5), replace "category 2" with "category 3".
- 4-35 Column 1, Coal, Conclusion. Revise the first sentence to read, "There would be no change from alternative A, except that coal exploration would be limited to methods that leave no surface disturbance on 711,230 acres (about 40 percent of SJRA)."

Page Revision

- 4-35 Column 2, Locatable Minerals, Impacts. Paragraph 1 (beginning "In alternative C, 1,538,430..."), line 1, replace "1,538,430" with "239,400"; same line, replace "a decrease" with "an increase".
- 4-35 Column 2, Locatable Minerals, Impacts. Paragraph 2 (beginning "In alternative C, 345,660..."), line 14, delete "production" and replace with "exploration and development". Line 15, delete "individual operators." and replace with "individuals who perform this work."
- 4-36 Column 1, Conclusion. First line on page, replace "production" with "exploration and development".
- 4-37 Column 2, Table 4-8. Climax: replace "9" with "8" and "13" with "10"; Late Seral: replace "23" with "22" and "22" with "23"; Rock outcrop/badlands: replace "21" with "23" twice.
- 4-39 Column 2, paragraph 5 (beginning "The area of..."), line 2, replace "440" with "1,800".
- 4-39 Column 2, paragraph 7 (beginning "elimination of..."), line 1, replace "30" with "120".
- 4-39 Column 2, paragraph 8 (beginning "livestock exclusions..."), last line, replace "115" with "470".
- 4-39 Column 2, paragraph 9 (beginning "ACEC designations..."), last line, replace "295" with "1,210".
- 4-40 Column 1, Conclusion. Paragraph 1 (beginning "Desert bighorn..."), last line, replace "440" with "1,800".
- 4-40 Column 1, Human Uses, Grazing, Impacts. Paragraph 1 (beginning "Grazing would..."), line 1, replace "37,840" with "42,340".

Page Revision

- 4-40 Column 1, Human Uses, Grazing, Impacts. Paragraph 2 (beginning "Livestock AUMs"), line 1, replace "12,930" with "13,390"; line 2, replace "23" with "24"; line 13, replace "148 AUMs" with "600 AUMs"; last line, replace "43,805" with "43,345".
- 4-40 Column 1, Human Uses, Grazing, Impacts. Paragraph 3 (beginning "This alternative would..."), line 2, replace "21" with "22".
- 4-40 Column 2, Conclusion. Paragraph 1 (beginning "The area..."), line 2, replace "37,840" with "42,340"; replace "1,683,160" with "1,678,630".
- 4-40 Column 2, Conclusion. Paragraph 2 (beginning "Livestock forage"), line 1, replace "12,930" with "13,390"; line 2, replace "43,805" with "43,345".
- 4-43 Column 1, Visual Resources, Impacts. Paragraph 2 (beginning "Other VRM..."), revise the second sentence to read "Class II would decrease 234,480 acres (42 percent); class III 120,280 acres (21 percent); and class IV 232,250 acres (41 percent)."
- 4-43 Column 2, Conclusion. Paragraph 1 (beginning "The area in VRM..."), revise the second sentence to read "The area in other VRM classes would decrease a corresponding amount: 234,480 acres in class II to 317,980 acres; 120,280 acres in class III to 439,790 acres; and 232,250 acres in class IV to 334,560 acres." Then add a new paragraph: "In about 206 cases, the VRM contrast rating scores would exceed class objectives."
- 4-43 Column 2, Lands, Impacts. Paragraph 2 (beginning "Lands available..."), line 3, replace "5,950" with "6,030". Last line, replace "107" with "104".
- 4-43 Column 2, Lands, Impacts. Paragraph 3 (beginning "The amount of land..."), line 4, after "retained" insert "and the 50-acre DOE withdrawal would remain in place".

Page Revision

- 4-44 Column 1, paragraph 1 (beginning "available for disposal..."), line 2, replace "5,950" with "6,030".
- 4-45 Column 2, Livestock Grazing. Paragraph 1 (beginning "Livestock forage ALMs..."), line 8, replace "8" with "7"; line 10, replace "Thirty" with "Twenty-six".
- 4-45 Column 2, Livestock Grazing. Paragraph 3 (beginning "The combined effects..."), line 6, replace "90 percent" with "92 percent".
- 4-45 Column 2, Livestock Grazing. Paragraph 4 (beginning "Based on the..."), line 5, replace "15 jobs" with "18 jobs"; replace "\$26,000" with "\$273,000"; line 6, replace "\$7,000" with "\$7,100".
- 4-46 Table 4-10. The revised table is printed at the end of this section.
- 4-46 Table 4-11. The revised table is printed at the end of this section.

Page Revision

- 4-47 Column 1, paragraph 1 (beginning "operator wealth..."), line 1, replace "\$2,171,000, a 7" with "\$2,217,000, an 8".
- 4-48 Column 1, Plan Budget. Paragraph 1 (beginning "The local..."), line 3, replace "38" with "32"; replace "\$737,000" with "\$623,000".
- 4-48 Column 1, Conclusion. Paragraph 1 (beginning "Mineral related local..."), line 6, replace "15" with "18"; line 7, replace "\$260,000" with "\$273,000"; replace "\$7,000" with "\$7,100"; line 8, replace "\$2,171,000" with "\$2,217,000".
- 4-48 Column 2, paragraph 1 (beginning "of land disturbing..."), line 5, revise the last sentence to read "The added cost of implementing this plan would generate an additional 7 jobs and \$129,000 in income."

TABLE 4-10

## Number and Degree of Livestock Operator Impacts, Alternative C

	Operators With an Increase From Existing Use and Net Revenues			Operators Not Affected	Operators With a Decrease From Existing Use and Net Revenues		
	+ 51%	11-50%	1-10%		1-10%	11-50%	+ 51%
Public rangeland forage	0	1	6	31	2	13	1
Total feed requirements	0	0	7	31	9	7	0
Operator returns to labor and investment	0	0	3	26	4	14	7

TABLE 4-11

## Aggregate Economic Impacts to Livestock Operators, Alternative C

<u>Livestock Operators</u>	<u>Current Situation</u>	<u>Alternative C</u>
Gross Revenue	\$ 3,437,800	\$ 2,995,100
Total Variable Cost	1,853,100	1,692,200
Returns Above Variable Cost	1,584,700	1,302,900
Returns to Labor and Investment <sup>a</sup>	403,300	171,800
Herd Size (animals)	12,440	10,800
Hired Labor (jobs)	18	16
Total Local Income	\$ 1,013,000	\$ 740,000
Total Local Employment (jobs)	176	158

NOTE: These budgets assume that ranchers have no long-term outstanding debt, that all operating capital is borrowed, and that existing ranchers would not go out of business.

<sup>a</sup>Returns net of variable and fixed costs to management, non-hired labor, machinery, equipment, and land.

## ALTERNATIVE D

The revised impact assessment for alternatives D is printed here in its entirety.

### OVERVIEW

Actions occurring under alternative D would conform to the generalized zoning plan shown in revised figure S-3. Surface use would be severely restricted on 1,054,870 acres to ensure natural succession of vegetation on large areas; minerals leases would not be issued. Surface disturbance would be minimized on 213,770 acres to protect the Alkali Ridge, Hovenweep, and Lockhart Basin ACECs, and developed recreation sites. Special conditions would be applied to the remainder of the resource area (510,550 acres) to protect vegetative resources, floodplains and riparian areas, sensitive soils, and existing land-use leases.

### ASSUMPTIONS

The following assumptions regarding surface disturbance from minerals, grazing, and other development were used to determine impacts on other environmental indicators.

It was assumed that 19 wells per year would be drilled between 1985 and 2000, and that each well pad and associated access road would total about 6.5 acres. Of the 19 wells, it was assumed that 18 would be in the Blanding Basin and 1 in the Paradox Fold and Fault Belt. The well pads were assumed to overlie areas that had previously been disturbed by geophysical exploration; 25 percent of the actual acres disturbed were assumed to overlap acres previously disturbed by geophysical activities. It was further assumed that 8 of the 19 wells would be productive, and the remaining 11 would be abandoned and reclaimed, and that reclamation would be successful, with a cover of grasses and shrubs (mix of native and exotic species) within 5 years. It was assumed that the vegetation mix and time frames used would meet natural succession area requirements (revised appendix A).

It was assumed that 725 miles of geophysical lines would be run per year, using the same assumptions given in alternative C.

It was assumed that 75 acres per year from 1985 to 2000 would be opened to (disturbed by) mineral materials disposal; and that of the 75 acres, 55 acres would be successfully reclaimed with grasses and shrubs (native and exotic species seed mix) within 5 years.

It was assumed that disturbance under notices and plans of operations between 1985 and 2000 would be the same as under alternative A.

It was assumed that no surface disturbance would be caused by exploration or production of coal, tar sand, potash, or any other mineral.

For grazing uses, it was assumed that there would be no large-scale surface disturbance such as from land treatments.

The assumptions under alternative D for transportation and utility corridors are the same as those given for alternative A.

### MINERAL COMPONENTS

#### Oil and Gas

##### Impacts

When compared to alternative A, long-term trend in new field discoveries and production would

decrease. Under this alternative, no area would be placed in category 1 leasing status (a decline of 891,310 acres, or 100 percent). Category 2 would contain 461,670 acres (a decrease of 155,500 acres or 25 percent); category 3, 241,270 acres (an increase of 127,150 acres, or 111 percent); and category 4, 1,074,890 acres (60 percent of the SJRA) (an increase of 919,660 acres, or 592 percent).

All areas left open to leasing would be subject to special conditions or no-surface-occupancy stipulations. In some areas these would restrict development enough to render wells uneconomical to produce. Areas of heaviest impact to oil and gas development would be in the Blanding Basin and Paradox Fold and Fault Belt where exploration and operating costs for the lessee or operator would increase due to the reclamation requirements (appendix S).

The no-surface-occupancy stipulations within the Alkali Ridge ACEC would effectively halt exploration and development of new leases in the greater portion of the Blanding Basin. Any attempt at development through directional drilling would add significantly to drilling and operating costs, and long-term production would decline. Designation of the Lockhart Basin ACEC would also adversely impact oil and gas leasing in the Paradox Fold and Fault Belt where a high potential exists for new field discoveries. There has been minor production from small fields located north and northeast of the Lockhart Basin area.

Closing 1,074,890 acres to leasing would also adversely impact oil and gas production. Although the majority of these areas (948,030 acres, or 88 percent of the closed area) occur in the Monument Upwarp section of SJRA, there would be a negative trend in long-term production, as these lands would be precluded from any type of exploration for new fields in the future, as currently productive lands are depleted of recoverable reserves. Even more significant would be the closure of 3,500 acres of the Blanding Basin to lease. About 145,860 acres occur in the Paradox Fold and Fault Belt, an area of high potential for new field discoveries and production, and about 5,000 acres on the White Canyon slope, an area of unknown potential.

Geophysical projects searching for new field discoveries would have special project conditions imposed. This would regulate the seismic methods that would be acceptable in certain areas. Geophysical projects are now restricted only on a case-by-case basis under certain specialized conditions, to meet legal requirements.

Under alternative D, geophysical operations would be permitted only with special conditions. In 1,316,160 acres (about 74 percent of SJRA) these conditions would limit geophysical operations to those that would leave no lasting evidence of surface disturbance.

The restrictions imposed on geophysical operations under alternative D would result in a long-term decrease in new field discoveries and subsequent production. This decrease would result from poor quality data from limited data acquisition means, denial of access, or seasonal use restrictions. Costs to mineral operators to run their own projects or to purchase data from independent seismic contractors would increase.

Due to the conditions, a greater decline in the rate of miles of line per year would occur than under alternative A. It is projected that 725 miles per year would be run (a decline of 25 miles, or 3 percent). Of that 725 miles, 700 would be in the Blanding Basin and 25 in the Paradox Fold and Fault Belt. About 400 miles (55 percent) of the 725 miles would be subject to stringent requirements to limit surface disturbance.

## Conclusion

The area available for lease would decrease by 919,660 acres compared to alternative A. The area available for lease under category 1 would be eliminated, a decrease of 891,310 acres; the area available for lease under category 2 would decrease by 155,500 acres to 461,070 acres. The area available under category 3 with no-surface-occupancy stipulations would increase by 127,150 acres to 241,270 acres. The area closed to leasing would increase 919,660 acres to 1,074,890 acres.



## Coal

### **Impacts**

The impacts to coal resources would be the same as described under alternative A, except that coal exploration would be limited to methods that leave no surface disturbance on 1,316,160 acres (about 74 percent of SJRA).

### **Conclusion**

There would be no change from alternative A. No area would be available for lease, and no coal would be produced.

## Tar Sand

### **Impacts**

The majority of the STSA, 7,360 acres, would be closed to lease. Of this, 6,460 acres would fall within a natural succession zone under this alternative, and the remainder in the White Canyon ACEC. This would be an increase of 7,200 acres, or almost 45 times, over the category-4 area in alternative A. None of the STSA would be under category 1 (a decrease of 3,080 acres, or 100 percent, compared to alternative A). Category 2, open with special conditions, would apply to 240 acres (a decrease of 4,380 acres, or 95 percent). Category 3, stipulated for no surface occupancy, would apply to 380 acres (an increase of 260 acres, or 217 percent).

### **Conclusion**

Alternative D would apply category 2 leasing requirements, with special conditions, to 240 acres, category 3 to 380 acres, and category 4 to 7,360 acres, within the STSA. None of the STSA would be under category 1. Production of tar sand would not change; none would be produced.

## Mineral Materials

### **Impacts**

Alternative D would greatly decrease the acreage available for material disposal, reduce production, and increase the cost of providing materi-

al from the smaller open area for use in the rest of SJRA (appendix S).

Only 463,030 acres, or about 25 percent of SJRA, would be open for material disposal under this alternative. This represents a decrease of 1,216,310 acres (72 percent), which would have a detrimental effect on the availability of usable material. This entire acreage would have special conditions applied. No disposal would be allowed on 1,316,160 acres.

The production of material would decline about 50 percent. A lot of production would come from sites that are not as conveniently located or do not possess the same quality of material that may be located in areas closed under this alternative, and this would increase hauling and processing costs.

### **Conclusion**

The area available for mineral materials disposal would decrease by 1,216,310 acres to 463,030 acres.

Production would decline by 50 percent, to 96,000 cubic yards of material per year.

## Locatable Minerals

### **Impacts**

Alternative D would be the most restrictive for locatable minerals. This alternative would segregate an additional 964,220 acres (an increase of 933 percent) from mineral location when compared to alternative A; 1,067,570 acres (59 percent of SJRA) would be closed to mineral entry. A total of 710,260 acres would remain open to entry, a decrease of 964,220 acres (58 percent).

A high percentage of the areas that would be segregated have mineral potential (appendix S). Nearly 500,000 acres would be in moderate or high mineral potential areas; the remaining area would have low potential. This could result in an adverse impact to mining, but because of current industry conditions, this impact is not expected to be felt before the year 2000.

In alternative D any plan of operations filed would require the application of special conditions within the 710,260 acres open to entry. Many of the special conditions generated in alternative D are currently being applied on a case-by-case basis to individual projects, to meet legal requirements. Preparing and filing plans of operation and complying with special conditions would result in added cost to the operator. This could result in an unquantified decrease in exploration and development, which would be significant for individuals who perform this work.

### **Conclusion**

The area available for mining claim location would decrease by 964,220 acres to 710,260 acres.

There would be an unquantified decrease in production that could be significant to individual operators.

### **Other Nonenergy Leasable Minerals**

#### **Impacts**

The area available for exploration and lease of other nonenergy minerals would decrease by 1,074,890 acres (60 percent). In the remainder of SJRA, zones of restricted development would be placed on leasing, exploration, and development of other nonenergy leasable minerals. The area available for development under standard conditions would be eliminated; all area open to lease would be subject to special conditions (461,670 acres) or no-surface-occupancy stipulations (241,270 acres). These special conditions or stipulations would not have been attached to any lease under alternative A.

About 202,300 acres (68 percent) of the total potash area would be closed to exploration and development under alternative D when compared to alternative A (appendix S). This would not change the projected production; potash production would not occur by the year 2000.

Impacts to other nonenergy minerals would be the same as under alternative A.

### **Conclusion**

The area available for exploration and lease of other nonenergy minerals would decrease by 1,074,890 acres to 702,940 acres. Special conditions would apply to 461,670 acres. No surface occupancy stipulations would be applied to 241,270 acres. No area would be available for development under standard conditions.

The area available for potash development would be 97,700 acres.

Production would be the same as under alternative A; there would be no production by 2000.

### **BIOTIC COMPONENTS**

#### **Air**

#### **Impacts**

Impacts to air quality would be the same as under alternative A.

#### **Conclusion**

There would be no change to air quality under alternative D.

#### **Soils**

#### **Impacts**

Soil loss would decrease by about 13 percent from alternative A. This would represent a decrease of 83,420 tons per year, compared to alternative A, to a total of 557,910 tons per year. Over a 15-year period, from 1985 to 2000, this would amount to a total decrease of about 1,251,300 tons, or a total loss of 8,368,650 tons.

The major reduction in soil loss estimates under this alternative would result from the reduction in licensed cattle use to 25 percent of the past 5 years average use on 1,356,720 acres. Reductions in mineral activities under this alternative would reduce soil loss from geophysical activities to less than 12,000 tons per year, from mineral material site development to about 1,200 tons per year, and from mining claim

assessment and development to less than 1,000 tons per year. Long-term reductions in soil loss from maintenance of existing land treatments would be less than 2,000 tons per year.

## Conclusion

The rate of soil loss would decrease to about 557,910 tons per year.

## Water

### Impacts

Surface water quality would increase under alternative D when compared to alternative A. The increase would correspond to the decreased rate of soil loss (see Soils).

The rate of sediment yield to the Colorado River would decrease by 23 acre-feet per year (14 percent) to 137 acre-feet per year. This represents a total of 2,055 acre-feet (a decrease of 345) by 2000.

The rate of salt yield to the Colorado River would decrease by 80 tons per year (13 percent) to 550 tons per year. This represents a total of 8,250 tons (a decrease of 1,200) by 2000.

Other impacts to surface water would be the same as under alternative A.

The impacts to ground water would be the same as under alternative A, and cannot be quantified.

## Conclusion

Surface water quality would improve under alternative D compared to alternative A. Sediment yield would decline to 137 acre-feet per year, and salinity to 550 tons per year.

No change to ground water quality is projected.

## Vegetation

### Impacts

Temporary vegetation disturbance would occur on 15,745 fewer acres (40 percent) than in alternative A (revised appendix W). This would be

primarily due to fewer acres of land treatments. A total of 23,655 acres would have a short-term loss. Maintenance of existing land treatments and oil, gas, and mineral activities would be the principal causes of disturbance. Maintenance of land treatments on 14,000 acres would eliminate most of the shrubs and trees, leaving mostly adventive grasses. Oil, gas, and mineral activity would cause a temporary disturbance on 7,900 acres. Disturbance from other causes would occur on 1,750 acres. Recovery of vegetation would occur within 5 years through natural succession or artificial seeding to primarily native species. All disturbance from land treatments and minerals would occur outside the natural succession areas.

Permanent vegetation loss would occur on 790 fewer acres than in alternative A (a decrease of 15 percent). This loss would occur from land disposals (2,870 acres), rights-of-way (300 acres) and oil and gas production (1,170 acres), for a total residual loss of 4,340 acres.

Anticipated changes in ecological condition are shown in table 4-12.

TABLE 4-12

### Anticipated Changes in Ecological Condition, Alternative D

Ecological Condition Class	Ecological Condition by Percent of Resource Area	
	Present (1985)	Future (2000)
Climax	8	11
Late seral	22	22
Mid seral	34	32
Early seral	13	12
Rock outcrop/ badlands	23	23

Changes to higher seral stages would result from implementation of existing AMPs and elimination

of continual spring grazing. AMPs and elimination of continual spring grazing would allow periodic rest of vegetation to recover from grazing, thus producing a higher density of livestock forage species, which would result in a higher seral stage. Land treatments would improve livestock forage condition in the treated areas.

Impacts to sensitive or T/E plants would be the same as under alternative A. Impacts to riparian vegetation are discussed under Wildlife.

Only 17 percent of woodlands would be available for any type of woodland harvest. The area removed from harvest of forest products by surface disturbance would decrease by 12,840 acres (25 percent) to 38,060 acres. A decrease of 382,470 acres (80 percent) would occur to the area available for private and commercial fuelwood harvest, and of 443,120 acres (83 percent) for harvest of other forest products.

Greater losses to forested areas from fire could occur under alternative D than under alternative A. Suppression of fires would occur on 264,750 acres, a decrease of 1,460,040 acres (85 percent). This could result in a significant decline of forested area if widespread fires occurred throughout SJRA, but this is considered unlikely.

## Conclusion

Short-term loss of vegetation would decrease by 15,745 acres to 23,655 acres. Residual loss would decrease by 790 acres to 4,340 acres.

The area available for private and commercial harvest of all forest products would decrease to 93,690 acres.

## Wildlife

### Impacts

The population of desert bighorn sheep would increase to about 1,500 animals, an increase of about 300 animals (25 percent) by the year 2000 compared to alternative A. Crucial bighorn sheep habitat would increase to 349,750 acres, an increase of 20,000 acres (6 percent).

The net gain of about 300 desert bighorn sheep would result primarily from the following factors:

- about 60 percent of the crucial habitat area (about 200,000 acres, or a 950 percent increase from alternative A) would be closed to oil and gas and combined hydrocarbon leasing to protect natural succession areas;
- as a secondary impact from use restrictions in natural succession areas, vegetation and habitat protection would reduce stress and increase food and cover, resulting in an assumed gain of 10 percent, or 20,000 acres of crucial bighorn sheep habitat and a gain of about 175 animals;
- within the total habitat area, management of the Lockhart Basin ACEC and the Beef Basin, Dark Canyon, and Grand Gulch Plateau SRMAS would also allow bighorn to increase;
- outside of the natural succession areas, development projects and woodland product use would result in stress and could disturb habitat areas, resulting in a loss of 75 animals;
- livestock grazing in the crucial habitat areas within natural succession areas would be reduced to 25 percent of current use, which would decrease competition for forage on winter range or rutting or lambing areas, resulting in a bighorn population increase of about 115 animals; and
- reductions in livestock use on three of the five mesa tops (about 19,000 acres) and prevention of land treatments within the natural succession areas would allow the bighorn sheep population to increase by about 85 animals.

The population of antelope would increase to about 75, an increase of about 25 animals (50 percent) by the year 2000 compared to alternative A. Crucial habitat would be the same as under alternative A, or 12,930 acres.

The population increase would result primarily from changes in the seasons of livestock use,

which would decrease competition for spring and early summer forbs and grasses within antelope fawning areas;

The population of deer would increase to about 9,162 animals, an increase of about 1,805 animals (25 percent) by the year 2000 compared to alternative A. Crucial deer habitat would increase to 192,150 acres, an increase of 230 acres (1 percent).

The net gain of about 1,805 deer would result primarily from the following factors:

- special conditions, applied to all development activities, woodland product use, and ORV use, would protect about 36,360 acres of crucial deer winter habitat (about 20 percent of the total), increasing the crucial habitat area by about 3,640 acres (10 percent), resulting in a total of about 40,000 acres protected; assuming that a gain of one deer would occur for about every 50 acres protected, these actions would result in a gain of 800 animals;
- outside of the natural succession areas, development projects and woodland product use would result in stress and could disturb habitat areas, resulting in a loss of 94 animals;
- loss of protective conditions to protect deer winter range on oil and gas leases would result in development on about 1,460 acres of crucial habitat, causing a loss of about 146 deer;
- geophysical activities would disturb about 1,950 additional acres of crucial deer winter range, resulting in a loss of 195 animals;
- livestock use would be modified to protect vegetation resources, which would result in a secondary impact of more available forage for the deer; and
- the seasons of livestock use would be modified to fall/winter on 12 allotments, to protect vegetative resources, decreasing competition for late winter and spring

forage and resulting in a gain of about 1,440 animals.

The area of riparian/aquatic habitat would increase by about 1,800 acres (30 percent) by 2000, compared to alternative A. Habitat for known T/E wildlife species occurs in the riparian/aquatic areas and would increase a corresponding amount.

The net increase of about 1,800 acres of riparian/aquatic habitat would result primarily from the following factors:

- protective conditions, applied to all development activity in riparian areas, and limitation of ORV use to existing roads and trails would eliminate losses now occurring (a total of 120 acres, as reflected in alternative A);
- management to protect natural succession areas and designation of the Alkali Ridge and Lockhart Basin ACECs would protect riparian/aquatic areas from disturbance, resulting in an increase of about 1,210 acres of riparian/aquatic habitat; and
- livestock exclusions from riparian areas (24 allotments), the reduced stocking rate in alternative D, and rest-rotation grazing systems would allow riparian/aquatic habitat to increase by about 470 acres.

## Conclusion

Desert bighorn sheep populations would increase by about 300 animals from alternative A, and crucial bighorn sheep habitat would increase by 20,000 acres. Antelope would increase by about 25 animals, and crucial antelope habitat would remain constant. Deer would increase by about 1,805 animals, and crucial deer habitat would increase by 230 acres. Riparian/aquatic habitat and related T/E species habitat would increase by 1,800 acres.

## HUMAN USES

### Grazing

#### Impacts

Grazing would be allowed on 21,460 more acres in this alternative than in alternative A, on the same number of allotments. Areas excluded from grazing would include relict vegetation study areas, riparian areas, the Grand Gulch ACEC, and developed recreation sites.

In this alternative livestock AUMs would decrease 19,064 from alternative A (34 percent). This decrease would result primarily from licensing at 25 percent of the past 5 years average in natural succession areas. It is assumed that this reduced licensing rate would allow natural plant succession to occur. Other decreases would result from land disposals (75 AUMs), oil and gas production (52 AUMs), rights-of-way (20 AUMs), and fencing of riparian areas (600 AUMs). The only increase would be from permit-tee demand, an estimated 840 AUMs. Total AUMs in this alternative would be 37,671 by the year 2000.

Seventeen new AMPs could be developed but only 5 existing AMPs could be developed to full potential in this alternative. The other 4 existing AMPs could not be fully developed because of restrictions on development and maintenance of range improvements in the natural succession areas. These AMPs would provide for periodic winter and spring seasonal rest to favor improved vigor and density of livestock forage species. Range improvements in these AMPs would also help correct problems of uneven livestock distribution.

Thirteen allotments would be totally or partially in natural succession areas (revised appendix U). Grazing would be reduced by 75 percent, and management would be minimal because of licensing at 25 percent of the past 5 years average use, the prohibition on construction of new range improvements, and restrictions on maintenance of existing ones. Grazing at this reduced rate would benefit desirable livestock forage species by allowing for improved vigor and density.

New land treatments would not be allowed in this alternative. Maintenance of existing seedings would be allowed only in areas outside natural succession areas; 28,000 acres on 22 allotments would be maintained (a 51 percent decrease). The remaining 29,000 acres of seedings in natural succession areas on 9 allotments would be abandoned and allowed to revert to pre-seeding conditions.

Season of use would be changed to eliminate or provide periodic rest on spring range annually after March 31 on 25 allotments and to delay late spring grazing until June 1 on 5 allotments. This would allow natural plant succession to predominate and allow improved vigor and density of livestock forage species, particularly cool season grasses.

#### Conclusion

The area available for grazing would increase 21,460 acres to 1,742,430 acres.

Livestock forage use would decrease by 19,064 AUMs to 37,671 AUMs.

### Cultural Resources

#### Impacts

The number of sites damaged under this alternative would decrease by about 1,475 (9 percent), compared to alternative A, to about 14,289 as a result of the restriction on vegetative disturbance, which would apply both inside and outside of the identified natural succession areas. These conditions would reduce damage to cultural resources resulting from other activities, especially oil and gas (less exploration and development), recreation (fewer impacts in existing SRMAs, the extensive RMA, and through ORV use limitations), and grazing (a reduction in grazing, abandonment of some existing land treatments and absence of new land treatments).

The number of sites protected under this alternative would increase by about 19,740 (78 percent), compared to alternative A, to about 45,120. The types of impacts would be the same as under alternative C.

The amount of direct and indirect damage to cultural resources under this alternative would decrease compared to alternative A. Increases in the number of sites impacted by recreation use in the new SRMAs would be more than offset by decreases in recreation use in the remainder of SJRA, as well as by lower disturbance levels from oil and gas and grazing activities. The number of sites protected under this alternative would increase over current management.

## **Conclusion**

The number of cultural sites damaged would decrease by about 1,475 to about 14,289. The number of sites protected would increase by about 19,740 to about 45,120.

## **Recreation**

### **Impacts**

This alternative would protect the primitive and semiprimitive ROS classes. In some areas, recreation use demand would not be met, as no additional facilities would be developed, and some current ORV use areas would be closed to ORVs.

The majority of the P, SPM, and SPM ROS classes are within the natural succession areas and would be maintained as a secondary result of the restrictions on development. Therefore, the impacts to the ROS classes would be as given in alternative C, except that a slight change to SPM and RN classes would occur; 1,820 acres (less than 1 percent) would shift from RN to SPM.

No additional recreation sites or facilities would be developed. The problems of user conflicts, trash, and human waste would continue as in alternative A.

Besides the ONAs listed in alternative C, one additional DNA (Arch Canyon, 4,200 acres) would be designated. It would be managed as described for other ONAs under alternative C; however, for all ONAs, VRM class-I objectives would have to be met for any development project.

A total of 367,420 acres would be designated as open to ORV use, a decrease of 1,311,920 acres

(78 percent); 336,880 acres designated as limited (all increase); and 1,074,890 acres designated as closed (an increase of 975,040 acres, or 976 percent). This would have an adverse impact on providing opportunities for meeting the present and increased ORV use demands.

Under alternative D, the identified natural succession areas would be closed to ORV use. In addition, part of the Moki-Red Canyon, Scenic Highway Corridor, and White Canyon ACECs would be closed to ORV use (these overlap to some extent with the natural succession areas). While much of this area is not now subject to recreational ORV use, this would result in a secondary impact, in that some areas currently receiving substantial recreational ORV use, such as the area adjacent to Indian Creek Falls, would be designated as closed to ORV use. In the Alkali Ridge, Hovenweep, and part of the Moki-Red Canyon ACECs and in developed recreation sites, ORV use would be limited to designated roads and trails (170,470 acres total); in riparian/aquatic areas, areas of sensitive soils, and in Lockhart Basin ACEC, use would be limited to existing roads and trails (129,910 acres total).

## **Conclusion**

Compared to alternative A, the acreage in ROS classes would shift toward the primitive classes. The P-class area would increase 137,330 acres to 198,520 acres. The SPM-class area would decrease 49,390 acres to 512,360 acres; SPM 68,520 acres to 324,810 acres; and RN 19,420 acres to 728,460 acres. The R- and U-class areas would not change.

Areas open to ORV use would decrease by 1,311,920 acres to 367,420 acres. Areas designated as limited would increase to 336,880 acres, where no areas are now managed as such. The area closed to ORV use would increase 975,040 acres to 1,074,890 acres.

## **Visual Resources**

### **Impacts**

Alternative D would place 1,371,090 acres (77 percent of the resource area) in VRM class I.

This represents an increase of 1,271,240 acres (almost 13 times as much) over alternative A. The increase includes the natural succession areas (1,054,870 acres total); ONAs (281,200 acres, with some overlap with natural succession areas); Bridger Jack Mesa and Lavender Mesa RNAs; Beef Basin, Cedar Mesa, Nokai Dome, North Abajo, and Valley of the Gods ACECs (all within natural succession areas); Moki-Red Canyon, Scenic Highway Corridor, and White Canyon ACECs (partially within natural succession areas); and Alkali Ridge and Lockhart Basin ACECs. Class-I areas would be managed so as to require class-I objectives to be met; this could cause some projects to be denied.

Other VRM class areas would remain the same as under alternative A, except where acreage was shifted into class I. Class II would decrease 398,230 acres (72 percent); class III 455,110 acres (81 percent); and class IV 417,900 acres (74 percent). There would continue to be no area designated as class V.

It is projected that by the year 2000, in 198 cases, visual contrast rating scores would exceed the VRM class objectives for that area. This would be a decrease of 73 (or 27 percent) from alternative A projections.

### **Conclusion**

The VRM class-I area would increase by 1,271,240 acres to 1,371,090 acres. The area in other VRM classes would decrease a corresponding amount: 398,230 acres in class II to 154,230 acres; 455,110 acres in class III to 104,960 acres; and 417,900 acres in class IV to 148,910 acres.

In about 198 cases, the VRM contrast rating scores would exceed class objectives.

### **Lands**

#### **Impacts**

Corridors for transportation and utility systems would be designated on 85,760 acres (all increase). Areas available outside of transportation and utility corridors would decrease 1,302,070 acres (78 percent), avoidance acres would increase to a total of 241,120 acres (all increase), and exclusion areas would increase 975,190 acres (977 percent).

Lands available for disposal under this alternative would decrease 90 acres (less than 1 percent) from alternative A, to a total of 2,870 acres. Some of the parcels in alternative A were eliminated because they were considered to have value for natural succession. However, some isolated parcels not previously identified as suitable for sale and parcels for community expansion would be included.

The amount of land withdrawn would be 1,066,130 acres, an increase of 964,220 acres (946 percent) over alternative A. Existing BLM classifications on 92,130 acres would be formally withdrawn, and the 50-acre DOE withdrawal would remain in place. Acquired lands not now open to entry (9,730 acres), the natural succession areas (1,054,870 acres), additional closures under ACECs (2,020 acres), and developed recreation sites (150 acres) would be withdrawn. These overlap somewhat with existing classifications.

### **Conclusion**

Under alternative D, 85,760 acres would be designated as transportation and utility corridors; there would be an increase of 975,190 acres to be excluded from rights-of-way, for a total of 1,075,040 acres; a decrease of 90 acres, to 2,870, in the lands available for disposal; and an increase of 964,220 acres in the area withdrawn from entry, to 1,066,130 acres.

### **ECONOMIC CONSIDERATIONS**

#### **Impacts**

#### **Minerals**

The proposed stipulations and special conditions would increase the cost and lower the output value of mineral exploration and development. Acreage with stipulations or special conditions that increase exploration and development cost and acreage closed to the development of leaseable, locatable, and salable minerals would both increase significantly from alternative A.

The large decrease in area available for new mineral activity would be far more significant



than any increased local expenditures due to added stipulations. Based on the assumed level of mineral activity under this alternative, mineral-related local employment and income would decrease by 147 jobs and \$3,083,000.

Decreased mineral activity would also decrease revenues to local taxing jurisdictions. Based on the assumptions for mineral activities, taxing revenues would decrease by \$1,734,000.

### Soil and Water

Lake Powell's value loss due to sediment originating in SJRA would decrease \$2,300 (table 4-13). The Lower Colorado River Basin user costs from salt originating in SJRA would decrease \$4,600. The analysis assumes that all sediment eventually enters Lake Powell and that water yield would not be affected.

TABLE 4-13

#### Annual Sediment and Salinity Related Cost, Alternative D

	Baseline	Alternative D
Sediment	\$ 17,500	\$ 15,200
Salinity	36,500	31,900
Total	\$ 54,000	\$ 47,100

Note: Assumes that all sediment yield enters Lake Powell. Sediment that, in fact, enters other capital investments would greatly increase sediment-related costs.

### Livestock Grazing

Livestock forage AUM losses from land disposals, rights-of-way, lower levels of use in natural succession areas, and riparian exclusions would decrease the available forage to 19 livestock operators by 39 percent. Twenty-six of 54 livestock operators would not be affected by this alternative. Changes in available forage

would affect rancher income by affecting herd sizes, weight gains, or calf survival rates.

Eleven of the 54 livestock operators would be excluded from using public rangeland forage at some point in the spring. The spring livestock exclusions would be of particular concern as most operators have few options with which to respond to these exclusions. Replacing forage lost through spring exclusions with hay would represent a worst-case analysis. The ranch budgets used in the impact analysis projected that ranchers would respond to the spring exclusions through a combination of increasing hay feed and reducing herd size.

The combined affects of the forage increases, forage decreases, and spring exclusions would benefit 1 operator, increasing his returns to labor and investment by 7 percent, and be detrimental to 25 operators, decreasing their returns to labor and investment by 150 percent (tables 4-14 and 4-15).

Based on the direct effects from the budget analysis and on the indirect and induced effects derived from a county economic model, it is estimated that local employment, income, and tax revenues would decrease by 30 jobs, \$453,000, and \$14,000 respectively.

Any grazing permit change could affect operator wealth. The decrease from active preference under this alternative could decrease the total operator wealth by as much as \$2,587,000, a 10 percent decrease.

Base properties are used as collateral for some types of loans. Since aggregate base property values are projected to decrease under this alternative, the level of total indebtedness allowed should also decrease. The operators' ability to obtain and repay loans would change in proportion to their projected incomes.

### Recreation

Recreation use of SJRA and its related local importance are projected to increase as in discussed alternative A. The relative mix of uses may change because of changes in the mix of recreation opportunities from alternative A (see

TABLE 4-14

## Number and Degree of Livestock Operator Impacts, Alternative D

	Operators With An Increase From Existing Use and Net Revenues			Operators Not Affected	Operators With A Decrease From Existing Use and Net Revenues		
	+ 51%	11-50%	1-10%		1-10%	11-50%	+ 51%
Public rangeland forage	0	0	1	32	12	4	5
Total feed requirements	0	0	1	32	15	5	1
Operator returns to labor and investment	0	0	1	26	11	4	12

TABLE 4-15

## Aggregate Economic Impacts to Livestock Operators, Alternative D

<u>Livestock Operators</u>	<u>Current Situation</u>	<u>Alternative D</u>
Gross Revenue	\$ 3,437,800	\$ 2,658,200
Total Variable Cost	1,853,100	1,546,700
Returns Above Variable Cost	1,584,700	1,111,500
Returns to Labor and Investment <sup>a</sup>	403,300	35,600
Herd Size (animals)	12,440	9,600
Hired Labor (jobs)	18	14
Total Local Income	\$ 1,013,000	\$ 560,000
Total Local Employment (jobs)	176	146

NOTE: These budgets assume that ranchers have no long-term outstanding debt, that all operating capital is borrowed, and that existing ranchers would not go out of business.

<sup>a</sup>Returns net of variable and fixed costs to management, non-hired labor, machinery, equipment, and land.

impacts to recreation). The local economic effect of this changing mix of opportunity settings is unknown. However, judging from the existing economic importance of recreation in SJRA (0.2 percent of local employment and income) these changes would have little effect on the local economy.

Some of the restrictions would reduce ORV use in certain areas. The resulting effect on local expenditures would be insignificant to the local economy.

Existing land based commercial outfitters rely heavily on the P and SPNM opportunity settings available in SJRA, and existing water based commercial outfitters rely heavily on SPNM opportunity settings where the only motorized use is from boats. The 14 percent projected gain of acreages in the ROS P and SPNM classes from alternative A could increase the demand for the services of land based commercial outfitters.

There is no known relationship between special management designations and recreation use. Publicity following designation could increase public awareness of these lesser known areas and therefore increase visitation and related local expenditures. Even if visitation to these special designation areas were doubled, the local economic effect would be insignificant. This effect, however, could be significant to the outfitters who might use these areas.

Desert bighorn sheep, antelope, and deer populations are projected to increase. Assuming that population/harvest and harvest/hunter ratios would remain constant, projected hunter pressure and expenditures would increase local employment by 0.8 job, earnings by \$9,400, and taxing revenues by \$500. However, the assumed constant harvest/hunter ratios overstate the increases to some degree.

#### **Other Land Uses**

The proposed land disposals would be widely scattered and would represent a 0.7 percent increase in the existing private land base, having little or no effect on nearby land values. Under private ownership, these lands would increase local taxing revenues by at least \$3,000.

The cost of environmental review for major utility lines is typically \$8,000 to \$15,000 per mile. This review would cost only an estimated \$1,500 to \$2,000 per mile in the utility corridors proposed for designation under this alternative [Pacific Gas, 1981].

Stipulations and special conditions would increase the cost of mineral activities, and there would be a significant increase in the acreage either closed outright or essentially closed to other land uses due to management restrictions. The large decrease in area effectively open to other land uses would be far more significant than any increase in local expenditures due to the added stipulations. The resulting local employment, income, and taxing revenue loss cannot be projected.

#### **Plan Budget**

The local direct, indirect, and induced effects resulting from the plan's budget would generate an estimated 28 jobs and \$558,000 of earnings in the local economy.

#### **Conclusion**

Mineral-related local employment would be reduced by 147 jobs, income by \$3,083,000 and taxing revenues by \$1,734,000. Sediment- and salinity-related costs would decrease by \$2,300 and \$4,600 respectively. Livestock-related local employment would decrease by 30 jobs, income by \$453,000, taxing revenues by \$14,000, and total rancher wealth by \$2,587,000. Recreation use and related local employment and income should increase, along with demand for commercial outfitter services. Wildlife use and related local employment by would increase by 0.8 job, income by \$9,400, and taxing revenues by \$500. Increased management restrictions and acreage where land disturbing activities would be excluded would reduce local economic activity and related employment, income, and taxing revenues. The added cost of implementing this plan would generate an additional 3 jobs and \$64,000 in income.

#### **SOCIAL CONDITIONS**

Activity exclusions and restrictions would have a local economic impact large enough to affect

existing social conditions. The mineral and livestock industries would be most affected; however, the economic impacts would be spread over most industries except manufacturing and industries related to recreation. The loss of employment opportunity would cause both a reduction of living standards and some outmigration from the area. Livestock operators would be most affected. Some operators would be forced to seek a second job, and operators who are forced to sell their operations would have to change their way of life entirely. Few ranchers have the training and skills to enter new job markets.

### ALTERNATIVE E

The revised impact assessment for alternatives E is printed here in its entirety.

### OVERVIEW

Alternative E, the preferred alternative, represents a balance of land uses and resource protection drawn from other alternatives. Actions occurring under alternative E would conform to the generalized zoning plan shown in revised figure S-4. Surface disturbance would be minimized on 251,980 acres to protect most ROS P-class areas; Bridger Jack Mesa, Butler Wash, part of Cedar Mesa, Dark Canyon, part of Hovenweep, Indian Creek, Lavender Mesa, and Scenic Highway Corridor ACECs; SPM areas in the San Juan River SRMA; the Pearson Canyon SRMA, and developed recreation sites.

Special conditions would be applied to 930,900 acres. Seasonal restrictions on 540,260 acres of this area would protect bighorn sheep lambing and rutting areas, antelope fawning areas, and crucial deer winter range. Surface use restrictions would protect floodplains, riparian/aquatic areas, sensitive soils, the Alkali Ridge and Snay Canyon ACECs, parts of the Cedar Mesa and Hovenweep ACECs, most of the ROS SPM-class area, and existing land leases. In addition, grazing uses would be limited to protect five mesa tops in bighorn sheep habitat, and sagebrush areas on crucial deer winter range.

### ASSUMPTIONS

The following assumptions regarding surface disturbance from minerals, grazing, and other development were used to determine impacts on other environmental indicators.

Assumptions for oil and gas development were the same as alternative A, except that it was assumed that the vegetation mix and time frames would meet ROS-class requirements (revised appendix A).

It was assumed that 750 miles of geophysical lines would be run per year (930 acres disturbance per year). Of this, 300 miles (30 acres) would be reclaimed with a cover of grasses and shrubs within 1 year; 325 miles (650 acres) within 5 years; 100 miles (200 acres) within 10 years; and the remaining 25 miles (50 acres) would not be reclaimed, due either to continued use, to rock outcrop, or to unsuccessful reclamation. It was assumed that a special vegetation mix would be used where needed to meet ROS-class or ACEC requirements.

It was assumed that disturbance for mineral materials disposal, annual assessment work, and plans of operations between 1985 and 2000 would be the same as under alternative A.

It was assumed that no surface disturbance would be caused by exploration or production of coal, tar sand, potash, or other minerals not discussed.

For grazing uses, it was assumed that 5 percent of the new land treatments proposed would actually be implemented by 2000. This amounts to 6,090 acres that would actually be treatable.

The assumptions under alternative E for transportation and utility corridors are the same as those given for alternative A.

### MINERAL COMPONENTS

#### Oil and Gas

#### Impacts

The area available for lease would increase by 155,230 acres (10 percent) compared to alterna-

tive A. Under alternative E, 481,150 acres would be placed in leasing category 1 (a decrease of 410,160 acres, or 46 percent). About 923,450 acres would be placed in category 2 and would carry special conditions (an increase of 306,280 acres, or 50 percent). Category 3 (leasing with no surface occupancy) would be applied to 373,230 acres (an increase of 259,110 acres, or 227 percent). No areas would be placed in category 4 (closed to leasing).

The overall impact of alternative E on exploration and development of oil and gas resources would be a relatively insignificant increase by 2000. Although more lands would be available for leasing, more acres would be placed in leasing category 3. About 52 percent of the acreage in SJRA would be in category 2 and would be leased under special conditions, which would result in increased exploration and development costs to operators. Overall production could increase, but the increase would be negligible, since increasing operator costs could result in premature field abandonments as wells would reach their economic limits sooner.

Special conditions would be applied to 923,450 acres of SJRA. The special conditions in category 2 could render some wells uneconomical to operate. The special conditions in the Blanding Basin area would result in cumulative adverse impacts on oil and gas exploration and development. Part of the crucial deer winter range and the Alkali Ridge and Hovenweep ACECs would occur in areas of high oil and gas potential.

Of secondary concern would be the impact of restrictions applied to leases in the Paradox Fold and Fault Belt. Exploration activity and leasing interest has been high in this part of SJRA. Lease restrictions within the Monument Upwarp would also discourage leasing and exploration, which could result in oil and gas production opportunities foregone even though the area has a low to moderate potential for new field discoveries.

The category 3 no-surface-occupancy stipulations would adversely impact drilling exploration and production development of oil and gas. The greatest impacts would occur in the Pearson Canyon SRMA and part of the Hovenweep ACEC (in

the Blanding Basin) and the Indian Creek ACEC and part of the Bridger Jack Mesa ACEC (in the Paradox Fold and Fault Belt) because leasing and exploration have been high in these areas, and they contain excellent potential for new field discoveries. The Monument Upwarp, which has low to moderate potential for new field discoveries, would also be impacted as a result of the Cedar Mesa, Butler Wash, and Scenic Highway Corridor ACECs and, to a lesser extent, by the Dark Canyon ACEC. Although little production has occurred to date in the Monument Upwarp, the no-surface-occupancy stipulation on these large blocks of land would halt any future drilling exploration or production in these areas.

Under alternative E, geophysical operations would be allowed with no special limitations on 482,510 acres, a 73 percent decline from alternative A. Operations on 1,296,680 acres would have special conditions attached. On 373,230 acres (21 percent of SJRA), these conditions would limit geophysical operations to those that would leave no lasting evidence of surface disturbance.

The restrictions imposed on geophysical operations under alternative E could result in a long-term decrease in new field discoveries and subsequent production. Impacts would be the same as discussed under alternative C.

The same number of miles of seismic line would be run per year as discussed under alternative A (750 miles per year), in the same areas (700 in the Blanding Basin, 25 in the Paradox Fold and Fault Belt, and 25 in the Monument Upwarp). About 560 miles (80 percent) of the 750 miles would be subject to special conditions to minimize surface disturbance.

The special requirements, and in particular the seasonal restrictions for crucial deer habit and cultural resource protection requirements, would affect methods of gaining geophysical data. The cultural requirements would also increase operating costs, because they would require additional documentation and some form of site collection, testing, or total site excavation. Increased costs are expected to be slight overall (although significant to individual operators) and have not been quantified.

## Conclusion

The area available for lease would increase by 155,230 acres compared to alternative A. The area available for lease under category 1 would decrease by 410,160 acres to 481,150 acres, and the area available for lease under category 2 would increase by 306,280 acres to 923,450 acres. The area available for lease under category 3 with no-surface-occupancy stipulations would increase by 259,110 acres to 373,230 acres.

The annual production rates of oil and gas would show a slight but unquantified increase.

The number of miles of seismic line run per year would not change.

## Coal

### Impacts

The impacts to coal resources would be the same as described under alternative A, except that coal exploration would be limited to methods that leave no surface disturbance on 373,230 acres (21 percent of SJRA).

## Conclusion

There would be no change from alternative A. No area would be available for lease, and no coal would be produced.

## Tar Sand

### Impacts

Under this alternative the entire STSA would be leasable, 160 acres (12 percent) more than is presently open to lease. The area under no surface occupancy would increase by 1,850 acres to 1,970 acres (a 1,542 percent increase). Most of the STSA (5,510 acres) would be in category 2 (890 acres, or 19 percent, more than under alternative A). About 500 acres would be under category 1, a decrease of 2,580 acres (84 percent) compared to alternative A. Production of tar sand would not change from alternative A.

## Conclusion

Alternative E would allow leasing and development on 6,010 acres of the STSA. Production of tar sand would not change; none would be produced.

## Mineral Materials

### Impacts

Under alternative E, 1,405,340 acres would be open for mineral materials disposal. Of this, standard conditions would be applied to 482,510 acres and special conditions to 922,830 acres; currently all work is done under standard conditions.

The acreage closed to disposal would be 373,850 acres (an increase of 274,000 acres, or 274 percent, compared to alternative A) but this would not change mineral materials production in SJRA. However, part of the closed area would be a potentially important source of usable material (appendix S). Portions of the closed areas in the western ACECs may become more important sources of material when U-95, U-261, and U-276 need to be resurfaced. Hauling material from outside the ACECs would be much more costly than using material that exists at the site.

## Conclusion

The area available for mineral materials disposal would decrease by 274,000 acres to 1,405,340 acres.

Production would remain the same as under alternative A, 192,000 cubic yards per year.

## Locatable Minerals

### Impacts

Under alternative E, 280,220 acres would be segregated from mineral entry. Compared to alternative A, an additional 176,870 acres (about a 171 percent increase) would be segregated. Of this, about 53,620 acres would fall into high or moderate mineral potential areas, and 123,250 acres into low mineral potential areas (appendix S).

The areas with moderate or high mineral potential that would not be open to entry would be the Pearson Canyon SRMA (1,920 acres), part of the Scenic Highway Corridor ACEC (12,980 acres), the Indian Creek ACEC (13,000 acres), and the Butler Wash ACEC (13,890 acres), which have potential for uranium; and the ROS SPM class in the San Juan River SRMA (9,830 acres) and part of the Valley of the Gods special emphasis area of the Cedar Mesa ACEC (2,000 acres), which have potential for gold and limestone. The combined acreage for these areas equals 53,620 acres.

The San Juan River segregation could result in the most change to mineral production. There has been a continued interest in mining for gold along the river, and there is currently one active mining operation. Interest has also been expressed in a limestone mining operation along the San Juan River; some of the limestone deposits fall into the SRMA segregation area. However, there has been no production of limestone from this area (as of 1987). These segregations would be subject to any valid existing rights of mining claims located before the segregations are approved.

In alternative E, 313,160 acres would have standard development conditions applied for any plan of operation, and 1,184,450 acres would require special conditions. Under current management all operations would have standard conditions applied. Many of the special conditions generated under alternative E are currently being applied on a case-by-case basis to individual projects. The seasonal conditions for wildlife and the sensitive soils conditions are currently being applied to meet legal requirements to the degree that the operator's rights are not curtailed. Filing plans of operations and compliance with special conditions would increase the operators' cost. This could result in an unquantified decrease in exploration and development, which could be significant for individuals who perform this work.

### **Conclusion**

The area available for mining claim location would decrease by 176,870 acres to 1,497,610 acres.

There would be an unquantified decrease in exploration and development that could be significant to individual operators.

### **Other Nonenergy Leasable Minerals**

#### **Impacts**

Zones of restricted development would be placed on leasing, exploration, and development of other nonenergy leasable minerals. The area available under standard conditions would be 481,150 acres, a decrease 1,296,680 acres (73 percent) compared to alternative A. The area with special conditions would increase from 0 to 923,450 acres. However, many of the special conditions (such as concern for sensitive soils or riparian areas) would be covered on a case-by-case basis for specific projects under alternative A. The area of no surface occupancy would increase from 0 to 373,230 acres. No area would be closed to leasing, which is the same as under alternative A.

The acreage open for potash development under alternative E would be reduced slightly from alternative A. Compared to 0 acres under present management, 14,720 acres (5 percent of the total) would be closed to development under alternative E (appendix S). This would not affect production rates; potash production would not occur by 2000.

Impacts to other minerals would be the same as under alternative A.

#### **Conclusion**

The area available for exploration and lease of other nonenergy minerals under standard conditions would be 481,150 acres. Special conditions would be applied on 923,450 acres, and no-surface-occupancy stipulations on 373,230 acres that would remain unrestricted under alternative A.

The area available for potash development would decrease by 14,720 acres to 285,280 acres.

Production would be the same as under alternative A; there would be no production by the year 2000.

## **BIOTIC COMPONENTS**

### **Air**

#### **Impacts**

Impacts to air quality would be the same as under alternative A.

#### **Conclusion**

There would be no change in air quality under alternative E.

### **Soils**

#### **Impacts**

Soil loss and sediment yield would decrease by about 9 percent from alternative A. This would represent a decrease of 61,745 tons per year, compared to alternative A, to a total of 581,975 tons per year. Over a 15-year period, from 1985 to 2000, this would amount to a total decrease of 926,175 tons, to a total loss of 8,729,625 tons.

The major reductions in soil loss would result from the exclusion of livestock on 138,120 acres of land, and long-term projected benefits from range treatments on 6,090 acres. This would lead to a projected reduction of about 34,000 tons per year of soil loss, primarily from the exclusion of livestock. Other major declines would be projected as a result of reductions in mineral activities. Soils loss from geophysical activities would decline to about 15,000 tons per year; from mineral materials to about 1,500 tons per year; and from mining claim assessment and development to less than 1,000 tons per year.

Long-term reductions in soil loss from maintenance of existing land treatments and proposed new land treatments on about 31,090 acres would reduce soil loss by about 2,000 tons per year.

#### **Conclusion**

The rate of soil loss would decrease to about 581,975 tons per year.

### **Water**

#### **Impacts**

Surface water quality would increase under alternative E when compared to alternative A. The increase would correspond to the decreased rate of soil loss (see Soils). Sediment yield would decrease by 30 acre-feet per year (a 19 percent decrease) to 130. Salinity would decrease by 90 tons per year (a 14 percent decrease) to 540. The types of impacts would be the same as under alternative C.

Other impacts to surface water would be the same as under alternative A.

The impacts to ground water would be the same as under alternative A, and cannot be quantified.

#### **Conclusion**

Surface water quality would improve, compared to alternative A. Sediment yield would decline to 130 acre-feet per year, and salinity to 540 tons per year.

No change to ground water quality is projected.

### **Vegetation**

#### **Impacts**

Temporary vegetation disturbance would occur on 5,400 more acres (a 14 percent increase) than in alternative A (revised appendix W). More land treatments would be the main cause of the increase. As in all alternatives, land treatments and oil, gas, and other mineral activities are the main causes of disturbances. Construction and maintenance of land treatments would change the vegetation on 31,300 acres. The change would be from shrubs and trees to adventive grasses and native shrubs and forbs. Oil, gas, and mineral activities would temporarily disturb 11,650 acres. Disturbance from various other causes would occur on 1,850 acres. Vegetation in these disturbed areas would recover within 5 years through natural succession or artificial seeding to native and adventive species (revised appendix A).



Permanent loss of vegetation would occur on 3,420 more acres than in alternative A (a 66 percent increase). This loss would result from land disposals (6,300 acres), rights-of-way (300 acres) and oil and gas production (1,950 acres).

Anticipated changes in ecological condition are shown in table 4-16.

**TABLE 4-16**

**Anticipated Changes in Ecological Condition,  
Alternative E**

Ecological Condition Class	Ecological Condition by Percent of Resource Area	
	Present (1985)	Future (2000)
Climax	8	11
Late seral	22	23
Mid seral	34	31
Early seral	13	12
Rock outcrop/ badlands	23	23

Changes to higher seral stages would result from implementation of existing AMPs and elimination of continual spring grazing. AMPs and elimination of continual spring grazing would allow periodic rest of vegetation to recover from grazing, thus producing a higher density of livestock forage species, which would result in a higher seral stage. Land treatments would improve livestock forage condition in the treated areas.

Impacts to sensitive or T/E plants would be the same as under alternative A. Impacts to riparian areas are discussed under Wildlife.

Less land would be available for forest product harvest than under alternative A, mainly as a result of increased surface disturbance, which would remove 173,720 acres from forest product harvest (an increase of 122,820 acres, or 241

percent). A loss of 158,190 acres (33 percent) would occur to the area available for private and commercial fuelwood harvest. A decrease of 218,840 acres (41 percent) would occur to the area available for harvest of other forest products. However, supplies of forest products should remain adequate through 2000.

Greater losses to forested areas from fire could occur under alternative E than under alternative A. Suppression of fires would occur on 266,060 acres, a decrease of 1,458,730 acres (82 percent). This could result in a significant decline of forested acres if widespread fires occurred throughout SJRA, but this is considered unlikely.

### **Conclusion**

Short-term loss of vegetation would increase by 5,400 acres to 44,800 acres. Residual loss would increase by 3,420 acres to 8,550 acres.

The area available for forest product use would decrease when compared to alternative A. The area available for private and commercial fuelwood harvest and for harvest of other forest products would decrease to 317,970 acres.

### **Wildlife**

#### **Impacts**

The population of desert bighorn sheep would increase to about 1,410, an increase of about 210 animals (18 percent) by the year 2000 compared to alternative A. Crucial bighorn sheep habitat would decrease to about 328,750 acres, a decrease of about 1,000 acres (less than 1 percent).

The net gain of about 210 bighorn sheep would result primarily from the following losses and gains:

- a continued population increase as discussed in alternative A;
- seasonal conditions would be applied to oil and gas leases and CHLs on 216,647 acres more than under alternative A, and the seasonal exclusions extended to protect the rutting season;

- management to protect ROS P and SPM classes would minimize disturbance on large tracts of land within the total habitat area, allowing the bighorn population to increase by about 160 animals.

- livestock use would increase somewhat in part of the crucial habitat areas, which could increase competition for forage on winter range, possibly decreasing bighorn populations (this is a remote possibility, and no impact numbers have been generated);

- livestock exclusions from five mesa tops (56,740 acres, or 17 percent of the crucial habitat area), would maintain large tracts of land in undisturbed condition and protect vegetation used by the sheep for food and cover;

- livestock exclusions and prevention of land treatments and grazing project developments in Dark Canyon ACEC (62,040 acres or 19 percent of the crucial habitat area) would allow bighorn to increase by about 70 animals;

- range project developments (water, land treatments, or fences) within crucial bighorn habitat would be constructed with seasonal restrictions so as not to interfere with the sheep.

The population of antelope would increase to about 85 animals by 2000, an increase of about 35 animals (70 percent) over alternative A. Crucial antelope habitat would be the same as under alternative A, or 12,930 acres.

The net gain of about 35 antelope would result primarily from the following factors:

- seasonal use conditions, applied to all development activities, woodland product use, and ORV use, would result in a gain of about 5 antelope;

- livestock grazing, managed for range improvement purposes, would decrease competition for spring and early summer forbs and grasses on 2 allotments within fawning areas, with insignificant gains in antelope population; and

- development of additional water facilities on spring fawning range would result in an increase of about 30 animals.

The population of deer would increase to about 8000, an increase of about 643 animals (9 percent) by the year 2000 compared to alternative A. Crucial deer habitat would decrease to 187,800 acres, a decrease of about 4,120 acres (2 percent).

The net gain of about 643 deer would result primarily from the following factors:

- seasonal use conditions, applied to all development activities, woodland product use, and ORV use, would reduce stress and improve habitat conditions on about 52,750 acres (until 2000), resulting in a gain of about 1,055 animals, assuming a gain of 1 deer for every 50 acres protected;

- even with the seasonal conditions, geophysical activities would disturb 3,495 acres of crucial habitat by 2000, resulting in a loss of 350 deer; oil and gas development activities and related road construction would disturb an additional 1,470 acres, resulting in a loss of an additional 147 deer by 2000, for a total loss of about 497 deer;

- livestock grazing at projected levels would allow the deer population to expand until deer are forced to compete with each other and with livestock for winter/spring forage (this threshold point cannot be known until until range monitoring studies are compiled); and

- exclusion of about 850 acres of sagebrush in crucial winter range from new land treatments would result in an increase in crucial habitat of about 850 acres and, assuming each deer needs 10 acres, about 85 deer.

The area of riparian/aquatic habitat would increase by 600 acres (10 percent) to 6,680 acres by 2000 compared to alternative A. Habitat for known T/E wildlife species occurs in the riparian/aquatic areas and would increase a corresponding amount.

The net increase of about 600 acres of riparian/aquatic habitat would result primarily from the following factors:

- protective conditions, applied to all development activity, and limiting ORV use to existing roads and trails within the riparian/aquatic zones would eliminate losses now occurring (a total of about 120 acres, as reflected in alternative A);
- management to protect ROS P and SPNM classes, and SPM class in the San Juan River SRMA, and designation of the Alkali Ridge, Shay Canyon, Cedar Mesa, Scenic Highway Corridor, Indian Creek, Butler Wash, Hovenweep, and Dark Canyon ACECs would allow riparian/aquatic habitat to improve in vigor and increase where these areas would be protected from disturbance, for a gain of about 480 acres.

#### **Conclusion**

Desert bighorn sheep populations would increase by about 210 animals from alternative A, to about 1,410, and crucial bighorn sheep habitat would decrease by 1,000 acres to about 328,750 acres. Antelope would increase by about 35 animals, to about 85, and crucial antelope habitat would remain constant. Deer would increase by about 643 animals, to about 8,000, and crucial deer habitat would decrease by about 4,120 acres to about 187,800 acres. Riparian/aquatic habitat and related T/E species habitat would increase by 600 acres.

#### **HUMAN USES**

##### **Grazing**

##### **Impacts**

Grazing would be allowed on 100,360 fewer acres than in alternative A (a 6 percent decrease), but on the same number of allotments. Areas excluded from grazing would include mesa tops in crucial desert bighorn sheep habitat areas, relict vegetation study areas (Bridger Jack Mesa and Lavender Mesa ACECs), Grand Gulch in the Cedar Mesa ACEC, Dark Canyon ACEC, Pearson Canyon SRMA, and developed recreation sites.

Livestock AUMs would increase by 341 compared to alternative A (less than 1 percent). Increases would result from permittee demand (2000 AUMs) and new land treatments (760 AUMs). Decreases would result from land disposals (118 AUMs), oil and gas production (130 AUMs), rights-of-way (20 AUMs) and exclusion of grazing from desert mesa tops in desert bighorn sheep crucial habitat areas (160 AUMs), and Dark Canyon ACEC (100 AUMs). Exclusion of grazing in part of the Grand Gulch ACEC would be the same as in alternative A. Total AUMs in this alternative through the year 2000 would be 57,076.

Twenty-one new AMPs would be implemented in addition to the nine that now exist. These AMPs would provide for periodic winter and spring seasonal rest to allow an increase in vigor and density of livestock forage species. Range improvements would also help distribute livestock use more evenly over allotments (appendix U).

Season of use would be changed on 6 allotments to eliminate grazing during the critical spring growth period. This would allow an increase in vigor and density of cool season grasses.

New land treatments would be completed on 6,090 acres. This assumes that only 5 percent of the actual treatable acres could be treated by the year 2000 because of permittee and BLM budget constraints. These treatments would convert existing woody vegetation undesirable for livestock to herbaceous vegetation desirable for livestock forage.

#### **Conclusion**

The area available for grazing would decrease 100,360 acres to 1,620,610 acres.

Livestock forage would increase by 341 AUMs to 57,076 AUMs.

##### **Cultural Resources**

##### **Impacts**

Under this alternative about 14,914 sites would be damaged, a decrease of 764 (5 percent) compared to alternative A. Application of restric-

tive conditions to ACECs designated to protect cultural resources and to ROS P and SPNM classes would reduce damage to cultural resources caused by recreationists, especially in the existing SRMAs and extensive RMA. Another effect of these conditions would be to decrease damage from ORV use.

The number of sites protected under this alternative would increase by about 2,845 (11 percent). This would be a result of restrictive conditions protecting sites within the proposed National Register cultural properties, archaeologic districts, and in the cultural resource ACECs (Alkali Ridge, Shay Canyon, Cedar Mesa, and Hovenweep). The development and implementation of CRMPs (Alkali Ridge, Cedar Mesa, and Fable Valley) would serve to strengthen and reinforce the protection of many of these sites. The protection of cultural sites through restrictive conditions is also reflected in the reduction in the number of sites damaged.

The magnitude of direct and indirect damage to cultural resources under this alternative would decrease when compared to current management under alternative A. The cumulative impact of this level of damage would be the loss of opportunity to "bank" cultural resources (conservation) and the loss of undetermined quality of recreational or educational experience (public values). Increases in the number of sites damaged by recreation use in the new SRMAs would be offset somewhat by decreased damage resulting from the protection of ROS P and SPNM classes in the remainder of SJRA. The number of sites protected under this alternative would increase from current management.

## **Conclusion**

The number of cultural sites damaged would decrease by about 764 to about 14,914. The number of sites protected would increase by about 2,845 to about 28,225.

## **Recreation**

### **Impacts**

This alternative would protect the majority of the P class and the SPM class within the San

Juan River SRMA. This would be a loss of 18 percent of the SPNM and 11 percent of the SPM class, reducing opportunities for semiprimitive recreation.

Development and expansion of recreation facilities would help to meet the increased demand for these opportunities. Designation of SRMAs and ACECs for recreation-related values would help focus management of these areas on recreation uses and maintenance of natural and cultural resources.

With management actions for alternative E, the ROS classes would shift toward the primitive when compared to alternative A. P-class areas would increase by 134,690 acres (220 percent). SPNM areas would decrease by 140,710 acres (25 percent); and SPM areas by 104,310 acres (27 percent). RN areas would increase by 110,400 acres (15 percent). The R class would remain at 14,720 acres and U at 320 acres.

There would be a loss of 2,710 acres (1 percent of current) of P class from the current situation. The SPNM class would lose 91,320 acres (18 percent) and SPM class would lose 35,790 acres (11 percent) due to actions such as land treatments and oil and gas development. These changes would result in an increase of 110,400 acres of RN class. The change in ROS classes would occur mostly in the Squaw Canyon, Cross Canyon, and Grand Gulch Plateau areas.

A loss of P class would occur in the Squaw and Cross Canyon areas, now P class, because they would not be subject to the special conditions developed to maintain other P-class areas. This is the only P-class area on the eastern edge of the resource area; subsequently primitive recreation opportunities in that area would be reduced.

A large portion of the changes to semiprimitive settings would occur on the Grand Gulch Plateau due to land treatments. This would displace users from these settings and could also change user perception of the plateau as a location for nonmotorized recreation opportunities. Use would be displaced to other locations in and outside the resource area. Because the Grand Gulch and Dark Canyon Primitive Areas are very

attractive to recreationists, a system for limiting use would probably be necessary to preserve the primitive settings.

Two ACECs would be designated under this alternative for their recreation-related natural values: Cedar Mesa (323,760 acres) and Dark Canyon (62,040 acres). This would help to focus management direction to protect the values present.

The river in the San Juan River SRMA would continue to experience increased demand for river running with current use limits being reached for the Sand Island to Mexican Hat and Mexican Hat to Clay Hills Crossing sections. The ROS SPM-class portion of this SRMA would be maintained by a mineral segregation, closing to minerals leasing, and special conditions to limit development. Increased user demand would also be present for the Montezuma Creek to Sand Island section where oil and gas development and gravel production could reduce the scenic quality, but probably not change the RN class.

In this alternative developments at Sand Island would be expanded with additional camp/picnic sites. The Mexican Hat launch point would be developed with trash and human waste facilities. These improvements would reduce user conflicts, trash, and human waste problems.

The developed recreation sites in the Grand Gulch Plateau SRMA would experience increased visitation, but would not be substantially impacted by the increased use or development activities. Camping and use of undeveloped locations would increase in the SRMA. This alternative would provide for two semideveloped campsites (Comb Wash/U-95 and Arch Canyon) which would help reduce the human waste and trash problems in these areas.

This alternative would designate two new SRMAs providing motorized and nonmotorized opportunities. The Canyon Basins SRMA (214,390 acres) would incorporate the existing Dark Canyon SRMA along with the Beef Basin and Indian Creek areas. Dark Canyon would continue to provide nonmotorized recreation opportunities. About 86,000 acres in the Indian Creek drainage would

be part of the SRMA and would receive additional recreation management, with 50,000 acres being managed for ORV use. Semideveloped campsites would be developed at the falls and along the creek between Newspaper Rock and Dugout Ranch. This would help reduce the trash and human waste problems. The Beef Basin area (66,450 acres) would also be managed with a recreation emphasis. This area would provide motorized recreation opportunities. No developments are currently planned. The potential would exist for motorized travel off existing routes to damage the scenic quality of the area.

The new Pearson Canyon SRMA (1,920 acres) would provide motorized semideveloped camping and hiking opportunities close to Monticello and Blanding.

Impacts to other recreation resources would be as under alternative A.

Recreational ORV use is projected to increase in SJRA, as described under alternative A. The acreage designated open or limited should be able to accommodate the increased use without substantial user conflicts.

There would be 611,310 acres designated as open to ORV (a decrease of 1,068,030 acres, or 64 percent); 813,060 acres in the limited category (all increase), and 354,820 acres in the closed category (an increase of 254,970 acres, or 255 percent).

ROS P-class areas except in the Squaw and Cross Canyon areas (196,040 acres total), the Bridger Jack Mesa, Lavender Mesa, Indian Creek, Butler Wash, Scenic Highway Corridor, and Dark Canyon ACECs (mostly in P class), part of the Cedar Mesa ACEC, and most of Mancos Mesa would be closed to ORV use. These areas are not currently subject to recreational ORV use.

ORV use would be subject to seasonal limitations to protect crucial bighorn sheep, antelope, and deer habitat areas (540,260 acres total, which overlaps 211,500 acres with other ORV limitations). ORV use would be limited to existing roads and trails to protect 6,000 acres of floodplains and riparian areas and the Alkali Ridge and Shay Canyon ACECs. The ROS SPNM-class

areas would be limited to existing or designated roads and trails, which could allow some motorized use to occur and conflict with nonmotorized use. The area around Road, Fish Creek and Owl Creek Canyons would be in this situation. ORV use would be limited to designated roads and trails to protect the SPM portions of the Grand Gulch Plateau SRMA, the Hovenweep ACEC, the Pearson Canyon SRMA, and developed recreation sites (250 acres).

Arch Canyon would remain available for ORV use and the potential for conflicts between recreation users would continue. Comb Wash would also remain open to ORVs, and damage to cultural sites would continue.

It is anticipated that recreational ORV use would continue to be limited to nonexistent in rugged or remote areas, even when these are designated as open to ORV use.

### **Conclusion**

Compared to alternative A, the acreage in ROS classes would shift toward the primitive. The P class would increase 134,690 acres to 195,810 acres. The SPM class would decrease 140,710 acres to 421,040 acres; and SPM 104,310 acres to 289,020 acres. The RN class would increase 110,400 acres to 858,280 acres. The R and U class areas would not change.

Areas open to ORV use would decrease by 1,068,030 acres to 611,310 acres. Areas designated as limited would increase to 813,060 acres, where no areas are now managed as such. The area closed to ORV use would increase 254,970 acres to 354,820 acres.

### **Visual Resources**

#### **Impacts**

Alternative E would place 348,010 acres (20 percent of the resource area) in VRM class I. This represents an increase of 248,160 acres (249 percent) over alternative A. The increase includes ROS P-class areas except in Squaw and Cross Canyons (195,810 acres total), the SPM-class area in the San Juan River SRMA, and the Dark Canyon, Indian Creek, Butler Wash, Scenic

Highway Corridor ACECs and part of the Cedar Mesa ACEC (some overlap with ROS P-class area).

Other VRM-class areas would remain the same as under alternative A, except where acreage was shifted into class I. Class II would decrease 195,920 acres (35 percent); class III 19,250 acres (3 percent); and class IV 32,990 acres (6 percent). There would continue to be no area designated as class V.

It is projected that by the year 2000, in 252 cases, visual contrast rating scores would exceed the VRM-class objectives for that area. This would be a decrease of 19 cases (7 percent) from alternative A projections.

### **Conclusion**

The VRM class-I area would increase by 248,160 acres to 348,010 acres. The area in other VRM classes would decrease a corresponding amount: 195,920 acres in class II to 356,540 acres; 19,250 acres in class III to 540,820 acres; and 32,990 acres in class IV to 533,820 acres.

In about 252 cases, the VRM contrast rating scores would exceed class objectives.

### **Lands**

#### **Impacts**

Corridors for transportation and utility systems would be designated on 85,760 acres (all increase). Areas available for transportation and utility facilities outside of corridors would decrease by 360,500 acres (21 percent), avoidance areas would increase to a total of 88,140 acres (all increase), and exclusion areas would increase 186,600 acres (187 percent) to 286,450 acres.

Lands available for disposal under this alternative would increase 3,470 acres over alternative A, to a total of 6,430 acres. This addition would be a result of adding parcels for community expansion and isolated parcels not previously included that are not needed for other surface resource uses. Disposing of an additional 3,470 acres would be an increase of 117 percent.

The amount of land withdrawn would be 278,780 acres, an increase of 176,870 acres (174 percent) over alternative A. Existing BLM classifications would be formally withdrawn on 92,130 acres, and the 50-acre DOE withdrawal would remain in place. Acquired lands not now open to entry (9,730 acres), the Indian Creek ACEC (13,000 acres), the Butler Wash ACEC (13,870 acres), the Scenic Highway Corridor ACEC (78,390 acres), part of the Cedar Mesa ACEC (107,050 acres), the Pearson Canyon SRMA (1,920 acres), SPM class in the San Juan River SRMA (9,830 acres), and developed recreation sites would be withdrawn. These areas overlap the existing classifications somewhat.

### Conclusion

Under alternative E, 85,760 acres would be designated as transportation and utility corridors; there would be an increase of 186,600 acres in exclusion areas to a total of 286,450 acres; an increase of 3,470 acres, to 6,430 acres, in the lands available for disposal; and an increase of 176,870 acres in the area withdrawn from entry, to 278,780 acres.

## ECONOMIC CONSIDERATIONS

### Impacts

#### Minerals

The proposed stipulations and special conditions would increase the cost and lower the output value of mineral exploration and development. Stipulations and special conditions would increase the cost of mineral activities (see impacts to oil and gas, mineral materials, and locatable minerals). Both the acreage with stipulations that increase exploration and development for leasable, locatable, and salable minerals and the acreage closed to development of locatable and salable minerals would increase from alternative A.

The effect of these stipulations and special conditions on local employment, income, and taxing revenues cannot be projected; however, based on the assumed mineral activity projections under this alternative, the overall effect would be small.

### Soil and Water

Lake Powell's value loss due to sediment originating in SJRA would decrease \$2,600 (table 4-17). The Lower Colorado River Basin user costs from salt originating in SJRA would decrease \$5,200. The analysis assumes that all sediment eventually enters Lake Powell and that water yield would not be affected.

TABLE 4-17

#### Annual Sediment and Salinity Related Cost, Alternative E

	Baseline	Alternative E
Sediment	\$ 17,500	\$ 14,900
Salinity	36,500	31,300
Total	\$ 54,000	\$ 46,200

Note: Assumes that all sediment yield enters Lake Powell. Sediment which in fact enters other capital investments would greatly increase sediment-related costs.

### Livestock

The livestock forage AUM increases from new land treatments, with AUM losses from oil and gas activity, land disposals, rights-of-way, and exclusions from ACECs and recreation sites would together increase the public rangeland forage available to 11 operators by 4 percent and decrease the forage available to 6 livestock operators by 2 percent. Thirty-five of 54 livestock operators would not be affected by this alternative. Changes in available forage would affect rancher income by affecting herd sizes, weight gains, or calf survival rates.

Four of the 54 livestock operators would be excluded from using public rangeland forage at some point in the spring. The spring livestock exclusions would be of particular concern, as most operators have few options with which to respond to these exclusions. Replacing forage lost through spring exclusions with hay would represent a worst-case analysis. The ranch

budgets used in the impact analysis projected that ranchers would respond to the spring exclusions through a combination of increasing hay feed and reducing herd size.

The combined effects of the forage increases, forage decreases, and spring exclusions would benefit 9 operators, increasing their returns to labor and investment by 3 percent, and be detrimental to 10 operators, decreasing their returns to labor and investment by 31 percent (tables 4-18 and 4-19).

Based on the direct effects from the budget analysis and on the indirect and induced effects derived from a county economic model, it is estimated that local employment, income, and tax revenues would decrease by 1 job, \$144,500, and \$200 respectively.

Any grazing permit change could affect operator wealth. The decrease from active preference under this alternative could decrease the total operator wealth by as much as \$1,473,000, a 4 percent decrease.

Base properties are used as collateral for some types of loans. Since aggregate base property values are projected to decrease under this alternative the level of total indebtedness allowed should also decrease. The operators' ability to obtain and repay loans should change in proportion to their projected incomes.

### **Recreation**

Recreation use of SJRA and its related local importance are projected to increase as discussed in alternative A. The relative mix of uses may change as a result of a changing mix of recreation opportunities from alternative A (see impacts to recreation). The local economic effect of this changing mix of ROS classes is unknown. However, judging from the existing economic importance of recreation in SJRA (0.2 percent of local employment and income) these changes would have little effect on the local economy.

The seven additional developed sites should increase use and related local expenditures. The services offered should not compete with,

and therefore not affect, privately owned recreation developments or commercial outfitters. The increased use would be minor relative to total visitation in SJRA, and related local expenditures would be insignificant.

Existing land based commercial outfitters rely heavily on the P and SPNM opportunity settings available in SJRA, and existing water based commercial outfitters rely heavily on SPNM opportunity settings where the only motorized use is from boats. The 1 percent projected loss of acreage in the ROS P and SPNM classes from alternative A would have little effect on land based commercial outfitters. The special protections afforded the San Juan River corridor could increase the demand for the services of water based commercial outfitters, but use limitations would prevent increased use.

There is no known relationship between special management designations and recreation use. Publicity following designation could increase public awareness of these lesser known areas and therefore increase visitation and related local expenditures. Even if visitation to these special designation areas doubled, the local economic effect would be insignificant. This effect, however, could be significant to outfitters who might use these areas.

Desert bighorn sheep, antelope, and deer populations are projected to increase. Assuming that population/harvest and harvest/hunter ratios would remain constant, projected hunter pressure and expenditures would increase local employment by 0.3 job, earnings by \$3,400, and taxing revenues by \$200. However, the assumed constant harvest/hunter ratios overstate the increases to some degree.

### **Other Land Uses**

The proposed land disposals would be widely scattered and would represent a 1.6 percent increase in the existing private land base, having little or no effect on nearby land values. Under private ownership, these lands would increase local taxing revenues by at least \$6,000.



TABLE 4-18

## Number and Degree of Livestock Operator Impacts, Alternative E

	Operators With An Increase From Existing Use and Net Revenues			Operators Not Affected	Operators With A Decrease From Existing Use and Net Revenues		
	+ 51%	11-50%	1-10%		1-10%	11-50%	+ 51%
Public rangeland forage	0	2	9	37	5	1	0
Total feed requirements	0	0	11	37	6	0	0
Operator returns to labor and investment	0	0	9	35	6	2	2

TABLE 4-19

## Aggregate Economic Impacts to Livestock Operators, Alternative E

<u>Livestock Operators</u>	<u>Current Situation</u>	<u>Alternative E</u>
Gross Revenue	\$ 3,437,800	\$ 3,425,000
Total Variable Cost	1,853,100	1,862,400
Returns Above Variable Cost	1,584,700	1,562,600
Returns to Labor and Investment <sup>a</sup>	403,300	384,000
Herd Size (animals)	12,440	12,400
Hired Labor (jobs)	18	18
Total Local Income	\$ 1,013,000	\$ 868,500
Total Local Employment (jobs)	176	175

NOTE: These budgets assume that ranchers have no long-term outstanding debt, that all operating capital is borrowed, and that existing ranchers would not go out of business.

<sup>a</sup>Returns net of variable and fixed costs to management, non-hired labor, machinery, equipment, and land.

The cost of environmental review for major utility lines is typically \$8,000 to \$15,000 per mile. This review would cost only an estimated \$1,500 to \$2,000 per mile in the utility corridors proposed for designation under this alternative [Pacific Gas, 1981].

Stipulations and special conditions would increase the cost of other land uses on a greater acreage than under alternative A. The acreage either closed outright or essentially closed to other land uses due to management restrictions would be essentially the same as in alternative A. The aggregate effect on local employment, income, and taxing revenues cannot be projected; however, the effect is expected to be small.

#### **Plan Budget**

The local direct, indirect, and induced effects resulting from the plan's budget would generate an estimated 30 jobs and \$600,000 of earnings in the local economy.

#### **Conclusion**

Sediment- and salinity-related costs would decrease by \$2,600 and \$5,200 respectively.

Livestock-related local employment would be reduced by 1 job, income by \$144,500, taxing revenues by \$200, and total rancher wealth by \$1,473,000. Recreation use and related local employment and income would increase, along with demand for commercial outfitter services. Wildlife use and related local employment would increase by 0.3 job, income by \$3,400, and taxing revenues by \$200. Land disposals would increase taxing revenues by \$3,000. Increased management restrictions would increase the cost of land disturbing activities, and the increased acreage where land disturbing activities would be allowed would allow additional economic activity, but the net effect on the local economy is unknown. The added cost of implementing this plan would generate 5 jobs and \$106,000 in income.

#### **SOCIAL CONDITIONS**

None of the management actions would impact local communities so far as to noticeably affect existing social conditions.

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## REVISIONS TO CHAPTER 5

### Page Revision

- 5-2 Column 1, Agencies Consulted. After last paragraph (beginning "An informal..."), insert the following:

An interagency tour was held in May 1987, with personnel from BLM-SJRA, USFS, and UDWB attending. The group toured upper Indian Creek and determined that a total grazing exclusion in the upper end of Indian Creek, near the boundary with Manti-LaSal NF, would not be needed. (The draft proposed such an exclusion under the preferred alternative.)

- 5-2 Column 2, Department of Agriculture. Paragraph 1, replace first sentence (beginning "The USFS released a proposed...") with "The USFS completed a Land and Resource Management Plan on the Manti-LaSal NF in November 1986 [USFS, 1986]."

After paragraph 1, insert "Through this RMP/EIS, BLM adopts the USFS Land and Resource Management Plan as it pertains to aspects of federal resource management administered by SJRA on USFS lands. BLM agrees that the USFS plan is sufficient to support BLM mineral leasing decisions and adequately supports the nature and intent of protective stipulations and special conditions that will be used by BLM in administering federal minerals under the NF."

- 5-2 Column 2, Department of Agriculture. Paragraph 2, replace the first sentence (beginning "The USFS draft plan, which...") with "The USFS plan provides, among other things, for the management of recreation, range, wildlife, watershed,

### Page Revision

riparian areas and timber resource management, and for the protection of archaeological values. The plan adopts management zones for general big game winter range, grazing use by domestic livestock, and wood-fiber production and harvest. The plan states that it is compatible with the goals of other public agencies, including BLM."

- 5-2 Column 2, Department of Agriculture. Paragraph 3 (beginning "The USFS draft plan establishes..."), line 1, delete "draft".
- 5-2 Column 2, Department of Agriculture. Paragraph 4 (beginning "The USFS draft plan also..."), line 1, delete "draft".
- 5-5 Column 1, paragraph 1 (beginning "The USFS draft plan outlines..."), line 1, delete "draft".
- 5-5 Column 1, paragraph 2 (beginning "The USFS draft plan would..."), line 1, delete "draft".
- 5-5 Column 1, paragraph 3 (beginning "The USFS draft plan shows..."), line 1, delete "draft".
- 5-3 Table 5-1, Federal Agencies. Under "Bureau of Indian Affairs, Shiprock", add "wild and scenic river study coordination."

Then insert "Bureau of Indian Affairs, Window Rock: management of San Juan River, wild and scenic river study coordination."

Page   Revision

- 5-3   Table 5-1, Federal Agencies. After Bureau of Indian Affairs, insert "Bureau of Reclamation, Durango Projects Office: Investigations on the San Juan River Unit, Colorado River Water Quality Improvement project."
  
- 5-3   Table 5-1, Topics Discussed. For National Park Service, Denver, CO, add "proposed management, Hovenweep NM resource protection zone; wild and scenic river study requirement."
  
- 5-3   Table 5-1, Topics Discussed. For National Park Service, Canyonlands NP, add "recreation management adjacent to NPS units; cultural resources; visual resources; wild and scenic river study coordination."
  
- 5-3   Table 5-1, Federal Agencies. After National Park Service, Canyonlands NP, add "National Park Service, Mesa Verde NP: Grazing management, Hovenweep NM; cultural resources; cooperative management strategy, proposed resource protection zone, Hovenweep NM."
  
- 5-3   Table 5-1, Topics Discussed. For National Park Service, Glen Canyon NRA, add "grazing management; wild and scenic river study coordination."
  
- 5-3   Table 5-1, Topics Discussed. For U.S. Forest Service, add "wildlife management; wild and scenic river study coordination."
  
- 5-3   Table 5-1, State Agencies. Before Utah Department of Transportation, insert "Southeastern Utah Association of Local Governments: Consistency with state plans prepared under Section 208 of the Clean Water Act."
  
- 5-5   Column 1, National Park Service. Paragraph 1 (beginning "The NPS has..."), line 2, after "NRA," insert [NPS, 1979]. Line 4, replace last sentence with "A general management plan for Hovenweep NM has been drafted and analyzed [NPS, 1985]. Completion of the plan was delayed pending

Page   Revision

- coordination with BLM. A Cooperative Management Strategy for the proposed resource protection zone surrounding Hovenweep NM, signed by the two agencies in April 1987 [BLM and NPS, 1987], will be incorporated into both the general management plan for the NM and this RMP. A Natural Resources Management Plan was completed for the Natural Bridges NM in April, 1986."
  
- 5-5   Column 2, Canyonlands NP. Paragraph 3 (beginning "The NPS has also..."), replace "do not discuss uses of the adjacent public lands" with "briefly discuss recreational use of adjacent public lands".
  
- 5-6   Column 1, paragraph 2 (beginning "ORV use,..."), after "ORV use" insert "(restricted to designated roads and to designated, posted ORV use areas)". Line 1, delete "would" and replace with "may". At the end of the paragraph, add the following: "The BLM mandate of multiple use and sustained yield creates difficulties in compatibility with NPS plans, which are based upon NPS mandates for preservation."
  
- 5-6   Column 1, paragraph 3 (beginning "The development zones..."), delete last sentence and replace with "Because NPS management of these zones is virtually identical to BLM management of adjacent public lands, there would be no inconsistency in management under any alternative."
  
- 5-6   Column 1, after the last paragraph (ending "...management provision."), insert the following:  
  
 Coordination of grazing responsibilities between BLM and NPS on lands within the NRA was addressed in the Umbrella Memorandum of Understanding for Grazing [BLM and NPS, 1984], and in the Interagency Agreement for Grazing Management on Glen Canyon National Recreation Area [BLM and NPS, 1986]. These agreements were taken into account in preparing the alternatives presented in the RMP/EIS; all alternatives would be consistent with these agreements.

Page Revision

Wildlife, vegetation, and cultural resources, and recreation management, on NRA lands is addressed in their Natural Resource Management Plan, Cultural Resource Management Plan, General Management Plan (November, 1979), and other planning documents on file with NPS. None of the RMP/EIS alternatives would be inconsistent with these plans.

- 5-6 Column 2, Natural Bridges NM. First line, replace "proposed management plan (September 1985)" with "Natural Resources Management Plan [NPS, 1986]". Line 3, replace last sentence (beginning "Any of the alternatives...") with "None of the alternatives in this RMP/EIS would conflict with management of the NM under the NPS plan. However, because the plan expresses concerns about backcountry use within the NM and scenic vistas, alternatives C, D, and E would be more compatible with the management objectives given in the NPS plan due to the emphasis on recreational opportunities and preservation of visual resources under these three alternatives."

- 5-8 Column 2, U.S. Department of Agriculture. After paragraph 1, insert the following.

USFS has joined BLM and the State of Utah in a cooperative effort to analyze the condition of the Indian Creek drainage and resolve any problems identified. USFS is a member, along with BLM and UDWR, of the Board of Big Game Control's Interagency Committee, which regulates hunting uses within Utah.

BLM will join with USFS and NPS to study the White Canyon drainage for inclusion in the wild and scenic river system (appendix DD).

Soil Conservation Service. The BLM and SCS are cooperatively funding a gauging station to quantify sediment loads coming from Montezuma Creek. Both agencies are also jointly involved with modeling the watershed for analysis of its condition

Page Revision

and detection of the areas that contribute the most sediment. BIA, the State of Utah, and USFS will be contacted during this analysis."

- 5-8 Column 2, Department of the Interior. Before "National Park Service" insert the following.

Bureau of Indian Affairs. BLM coordinates management of the San Juan River with the Shiprock Agency and Window Rock Resource Office, BIA. The southern shoreline of the river is within the Navajo Indian reservation. BLM will join with the BIA and NPS to study the San Juan River for inclusion in the wild and scenic river system (appendix DD).

- 5-9 Column 1, paragraph 1 (beginning "totaling 312,660..."), line 2, after "any range improvement." insert the following:

The Square Tower Unit of Hovenweep NM is subject to grazing on a 100-acre parcel (part of the Cross Canyon allotment). BLM administers livestock grazing within the NM under an agreement (dated July 29, 1975) between NPS, BLM, and the permittee. The grazing privilege has been exercised only five times since 1962 (when the NM was designated), and not at all since 1978.

BLM and NPS have worked closely since 1984 to develop a management strategy for public lands and resources in the vicinity of Hovenweep NM. Management of cultural resources was a primary concern, with maintenance of a natural-appearing landscape a secondary concern. Both the Utah and the Colorado BLM organizations were involved in this effort. A Cooperative Management Strategy was signed by the BLM State Directors, Utah and Colorado, and the Regional Director, Rocky Mountain Region, NPS in April 1987 [BLM and NPS, 1987]. The provisions of this document have been incorporated into this final EIS and the proposed RMP.

Page Revision

BLM will join with NPS to study these river segments in SJRA for inclusion in the wild and scenic river system (appendix DD). The study of the Colorado River will be made jointly with BLM Grand Resource Area and Canyonlands NP. The study of the White Canyon drainage will be made jointly with Canyonlands NP, Glen Canyon NRA, and the USFS. The study of the San Juan River will be made jointly with Glen Canyon NRA and the BIA.

- 5-9 Column 1, Bureau of Land Management. Paragraph 1 (beginning "Other BLM offices..."), last line, after the last sentence, add "SJRA will coordinate with Grand Resource Area and NPS on a study of the Colorado River for inclusion in the wild and scenic river system (appendix DD)."
- 5-9 Column 1, State and Local Governments. Paragraph 1 (beginning "Management of...", last line (after "for wildlife."), add "The BLM and USFS are members, along with UDWR, of the Board of Big Game Control's Interagency Committee, which regulates hunting uses within Utah."
- 5-9 Column 2. Paragraph 5 (beginning "Publication of this draft..."), replace paragraphs 5 and 6 with the following.

Page Revision

The draft RMP/EIS was published in May 1986 with a 5-month formal public review and comment following. The comment period ended November 3, 1986. To facilitate public review, an open house was held at the SJRA office on July 16, 1986. The public and other agencies were invited to comment on any aspect of the planning process, but especially on the alternatives analyzed, data considered in the affected environment, the projection of estimated effects, and the selection of the preferred alternative. Extensive comments were received from the general public and from industries, organizations, and federal, state, and local agencies.

The proposed RMP and final EIS incorporates salient points and information brought forward during the comment period. The data and conclusions presented in the draft have been revised to incorporate additional information and to accommodate public concerns. As a result, the preferred alternative has been revised from the draft preferred alternative. The proposed RMP reflects the changes made in the final EIS.

## REVISIONS TO APPENDIX A - MITIGATION REQUIREMENTS FOR LAND USE ACTIVITIES

### Page Revision

- A-1 Column 2, paragraph 2 (beginning "Under Alternative A..."), line 7. Revise sentence to read "Some types of activities, such as geophysical work or mining related work disturbing less than 5 acres, would proceed under a notice."
- A-2 Column 2, Special Recreation Use Areas. Paragraph 2 (beginning "Surface use..."), line 2, delete "and paleontological".
- A-2 Column 2, Special Recreation Use Areas. Delete paragraph 3 (beginning "Significant paleontological...").
- A-4 Column 2, end of page. After last paragraph (ending "until the pit is dry" add "Wildlife. All areas subject to surface disturbance or rehabilitation would be inventoried for the presence of nesting raptors, threatened or endangered species, or state-listed sensitive species. If nesting raptors are present, the Area Manager may require an avoidance zone of up to 0.5 mile around nesting areas (depending on site-specific conditions), to the extent possible without curtailing valid rights. Sensitive species listed by the state are managed similarly to threatened or endangered species, and adverse impacts will be avoided or mitigated."
- A-5 Column 1, Cultural Resources. Paragraph 1 (beginning "All areas..."), line 5, before "BLM-approved" insert "BLM archaeologist or". Line 10, replace "mitigation of known" with "treatment of".

### Page Revision

- A-5 Column 2, National Register Cultural Properties and Archaeologic Districts. Delete paragraph 3 (beginning "Surface disturbance...").
- A-6 Column 2, paragraph 6 (beginning "For drilling or..."), line 1, after "trash pit" insert "or trash cage will be provided. If used, trash pits".
- A-6 Column 2, paragraph 7 (beginning "Immediately on..."), line 3, after "surrounding area," insert "and". After "trash pit" insert "or trash cage. If a trash cage is used, the cage and all trash will be removed from the area and hauled to an authorized dump site. If a trash pit is used, the trash will be ".
- A-7 Column 1, Floodplain and Riparian/Aquatic Areas. In the heading, replace "1,500" with "6,000". Replace paragraph 1 (beginning "Floodplains and...") with the following:
- Major floodplains and riparian/aquatic areas are shown in figures 3-9 and 3-12. All floodplains and riparian/aquatic areas are managed in accordance with Executive Orders 11988 and 11990 and the Endangered Species Act. Acreage was determined using a 100-foot corridor. These special conditions would be applied to riparian areas wherever they occur, and would not be applied to non-riparian areas within the estimated corridor.



Page Revision

A-7 Column 2, paragraph 2 (beginning "Surface disturbance..."), line 4. Replace last sentence with "In an area closed to ORV use, a plan of operations is required for any activity related to mining that is not casual use."

A-8 Column 2, Floodplain and Riparian/Aquatic Areas. In the heading, replace "1,500" with "6,000". Replace paragraph 1 (beginning "Floodplains and...") with the following:

Major floodplains and riparian/aquatic areas are shown in figures 3-9 and 3-12. All floodplains and riparian/aquatic areas are managed in accordance with Executive Orders 11988 and 11990 and the Endangered Species Act. Acreage was determined using a 100-foot corridor. These special conditions would be applied to riparian areas wherever they occur, and would not be applied to non-riparian areas within the estimated corridor.

A-9 Column 2, Bridger Jack and Lavender Mesa ACECs. Last paragraph (beginning "Surface disturbance..."), revise last sentence to read "In an ACEC, a plan of operations is required for any activity related to mining that is not casual use."

A-12 Column 1, Alkali Ridge and North Abajo ACECs. Paragraph 1 (beginning "The Alkali..."), line 5, replace "potential scientific and management use of cultural resources," with "utilizing the informational potential,". Line 7, delete "for

Page Revision

future use". Line 8, replace "(recreational) use" with "values for cultural resources".

A-12 Column 1, Alkali Ridge and North Abajo ACECs. Paragraph 3 (beginning "In an ACEC..."), revise first sentence to read "In an ACEC, a plan of operations is required for any activity related to mining that is not casual use."

A-12 Column 1, Alkali Ridge and North Abajo ACECs. Paragraph 4 (beginning "Grazing at existing..."), delete second sentence (beginning "New land treatments..."). Line 5, after "maintained" insert "and new land treatments may be implemented".

A-12 Column 1, Alkali Ridge and North Abajo ACECs. Delete paragraph 5 (beginning "Small-scale...").

A-12 Column 2, Grand Gulch ACEC. Paragraph 1 (beginning "The Grand Gulch..."), line 5, replace "public (recreational) and potential scientific uses" with "utilizing the informational potential and public values".

A-12 Column 2, Grand Gulch ACEC. Delete paragraph 3 (beginning "No new wildlife...").

A-14 Column 2, Lockhart Basin ACEC. Paragraph 2 (beginning "Unless prohibited..."), line 5, revise second sentence to read "In an ACEC, a plan of operations is required for any activity related to mining that is not casual use."

## ALTERNATIVE D

The revised mitigation requirements for alternative D are printed in their entirety.

### INTRODUCTION

The following special conditions have been developed by the interdisciplinary team to mitigate potential adverse environmental impacts caused by surface disturbing activities, while meeting the overall objectives of alternative D. These special conditions are considered to be a part of alternative D, and the analysis of environmental impacts in chapter 4 takes them into account.

These special conditions are meant as general guidelines (both for analysis purposes and to guide development of specific project special conditions). They may not apply to all management actions given in table 2-7.

### SOILS

#### Floodplains and Riparian/Aquatic Areas (6,000 acres)

Major floodplains and riparian/aquatic areas are shown in figures 3-9 and 3-12. All floodplains and riparian/aquatic areas are managed in accordance with Executive Orders 11988 and 11990 and the Endangered Species Act. Acreage was determined using a 100-foot corridor. These special conditions would be applied to riparian areas wherever they occur, and would not be applied to non-riparian areas within the estimated corridor. Within identified natural succession areas, the special conditions for those areas take precedence.

No surface occupancy or surface disturbance will be allowed, except vehicular use of existing roads and trails. Structural development, except fences, will be prohibited within actual floodplains or riparian/aquatic areas.

Take-down panels or water gates will be installed on all fences that cross intermittent or perennial stream channels.

Livestock grazing and range improvements will be excluded from all riparian areas. This applies

to all riparian areas and will take precedence within identified natural succession areas.

#### Sensitive Soils Areas (195,000 acres; sensitive soils: 45,000 acres)

Within the identified areas, which total 195,000 acres (figure 3-9), approximately 23 percent of the soils (45,000 acres) are classified as sensitive. Sensitive soils are those on sloping to steep terrain with badland and gypsumland soils. They are subject to erosion and difficult to revegetate. Not all soils within these areas are sensitive. If there is any question as to whether soils within a given project area are or are not sensitive, the operator should consult the BLM. Some sensitive soils areas fall in natural succession areas; the special conditions given below are in addition to those special conditions.

Construction and development are to be avoided where possible in areas with the following characteristics: slopes in excess of 10 percent, soils high in clay content, and soils high in salt or gypsum content. Operations will be located so as to reduce erosion and improve the opportunity for revegetation within areas of sensitive soils. Motorized access will be allowed only on existing roads and trails.

Prior to commencement of surface disturbing activities, the operator will visit the area with the BLM surface protection specialist, who will identify areas of sensitive soils for the operator.

Grading operations will be allowed only when soils are dry. Cross-country travel or construction activity will be allowed only when soils are dry or frozen or have snow cover.

New roads will be constructed so as to avoid areas of sensitive soils where possible. In areas of sensitive soils where roads must be allowed, new roads will be constructed with water bars and graded to spread drainage, instead of channeling runoff. No road grades in excess of 15 percent will be allowed; no surface disturbance from vehicle chains or leads will be allowed on slopes greater than 15 percent. No vehicular access will be allowed across slopes in excess of 25 percent.

Reclamation on sites with sensitive soils will require grading using slopes of 5 percent or less where possible, and grading the site so as to collect water for revegetation onsite.

Revegetation will be with adapted native species and prostrate Kochia, where allowed by vegetation special conditions.

## **VEGETATION**

### **Natural Succession Areas (1,054,870 acres)**

The four identified natural succession areas are shown in figure 2-1. Under alternative D, these areas will be managed so as to minimize surface disturbance for the purpose of protecting vegetative communities.

Within identified natural succession areas, surface disturbing activities will be allowed only so long as natural succession of plant species is not disrupted. If vegetation will be permanently disturbed, such as through grading, excavation, embankments, blading, use of chain saws, etc., projects will be denied.

The natural succession areas will be managed as VRM class I. Only projects that meet VRM class I objectives will be allowed.

Reclamation of disturbed areas will require revegetation with native plant species which occur naturally in the immediate area; revegetation must be successful within 5 years to meet the pre-existing conditions.

The natural succession areas will be closed to mineral leasing and disposal of mineral materials. They will be segregated from mineral entry. In an area closed to ORV use, a plan of operations is required for any activity related to mining that is not casual use.

The natural succession areas will be closed to vehicular access.

No private or commercial harvest of woodland products will be allowed, except limited onsite collection of dead fuelwood for campfires.

Within the natural succession areas, grazing will be limited to 25 percent of the past 5 years average licensed use (1979-1984). Range improvements will be allowed only if vegetation is not disturbed. Within the natural succession areas, maintenance of existing land treatments and construction of new land treatments will not be allowed.

Wildlife habitat improvements will be allowed within the natural succession areas so long as vegetation and VRM requirements are met.

No watershed control structures will be allowed. Conditional suppression will be used for fires. Fires will be allowed to burn unless they threaten life or property. Motorized suppression methods will be used only if necessary to protect life or property.

### **Vegetation Resources (724,320 acres)**

These special conditions would apply to all public land in SJRA outside of the natural succession areas (figure 2-1).

New surface disturbance will be limited to that which can be reclaimed to visually match the initial conditions within 5 years.

### **Bridger Jack Mesa and Lavender Mesa RNAs**

The Bridger Jack Mesa (5,290 acres) and Lavender Mesa (640 acres) RNAs are shown in revised figure 2-5. Under alternative D, the RNAs would be managed to meet the requirements of 43 CFR 2071.1 to use the lands for research and experiment purposes to provide a baseline for range-land research of relict and near-relict plant communities. Both RNAs are completely overlapped by a natural succession area; the special conditions given below are in addition to those developed for natural succession areas and take precedence.

No surface occupancy or disturbance by mechanized or motorized equipment will be allowed, except helicopter access for scientific study. Foot and horseback access will be allowed for scientific study purposes.

No grazing (including grazing by pack animals) will be allowed. No land treatments or facilities will be allowed, except test plots or facilities necessary for scientific study of relict or near-relict plant communities.

No special purpose leases or permits will be issued.

## **CULTURAL RESOURCES**

### **Alkali Ridge and Hovenweep ACECs**

The Alkali Ridge ACEC (170,320 acres) and Hovenweep ACEC (2,000 acres) are shown in revised figure 2-5. Under alternative D, these areas would be managed to protect cultural resources, and to provide the maximum opportunity for utilizing the informational potential of cultural resources (see glossary). The ACECs do not overlap any of the identified natural succession areas.

Surface disturbance will be prevented to the maximum extent possible to preserve and protect cultural resources. Both direct and indirect damage to cultural resources will be avoided. Cultural properties listed, or eligible for listing, on the National Register would be avoided by a minimum of 250 feet. If avoidance is not possible, impacts will be mitigated through limited or complete excavation.

No surface occupancy will be allowed on any lease or permit.

The areas will be managed as VRM class I. Only activities that meet class I objectives will be allowed.

In an ACEC, a plan of operations is required for any activity related to mining that is not casual use. Motorized access will be restricted to designated roads and trails.

Grazing will be allowed at existing levels only so long as cultural resources are not damaged. New range improvements will not be allowed. Maintenance of existing range improvements will be allowed only so long as cultural resources are not damaged.

No private or commercial harvest of woodland products will be allowed, except limited onsite collection of dead fuelwood for campfires.

New wildlife habitat improvements will not be allowed.

### **Moki-Red Canyon ACEC (71,020 acres; 7,000 acres outside the natural succession area)**

The Moki-Red Canyon ACEC is shown in revised figure 2-5. Under alternative D, this area would be managed to protect cultural resources, and to provide the maximum opportunity for utilizing the informational potential of cultural resources (see glossary). The ACEC is partially overlapped by a natural succession area; 7,000 acres fall outside of the natural succession area. The special conditions given below are in addition to those developed for natural succession areas and take precedence.

The 7,000 acres outside of the natural succession area will be managed under the special conditions for the natural succession area. Surface disturbance will be prevented to the maximum extent possible to preserve and protect cultural resources.

The trail in Red Canyon will remain open.

Both direct and indirect impacts to cultural resources will be avoided. Cultural properties listed, or eligible for listing, on the National Register would be avoided by a minimum of 250 feet. If avoidance is not possible, impacts will be mitigated through limited or complete excavation. All surface disturbance must be reclaimed within 1 year to meet the original conditions.

### **North Abajo ACEC (65,450 acres)**

The North Abajo ACEC is shown in revised figure 2-5. Under alternative D, this area would be managed to protect cultural resources, and to provide the maximum opportunity for utilizing the conservation and public values of cultural resources (see glossary). The ACEC is completely overlapped by a natural succession area. The special conditions given below are in addition to those developed for natural succession areas and take precedence.

Surface disturbance will be prevented to the maximum extent possible to preserve and protect cultural resources. Both direct and indirect impacts to cultural resources will be avoided. Cultural properties listed, or eligible for listing, on the National Register would be avoided by a minimum of 250 feet. If avoidance is not possible, impacts will be mitigated through limited or complete excavation. All surface disturbance must be reclaimed within 1 year to meet the original conditions.

New wildlife habitat improvements will not be allowed.

#### **Nokai Dome ACEC (90,850 acres)**

The Nokai Dome ACEC is shown in revised figure 2-5. Under alternative D, this area would be managed to protect cultural resources, and to provide the maximum opportunity for utilizing the informational potential of cultural resources (see glossary). The ACEC is completely overlapped by a natural succession area. The special conditions given below are in addition to those developed for natural succession areas and take precedence.

Surface disturbance will be prevented to the maximum extent possible to preserve and protect cultural resources. Both direct and indirect impacts to cultural resources will be avoided. Cultural properties listed, or eligible for listing, on the National Register would be avoided by a minimum of 250 feet. If avoidance is not possible, impacts will be mitigated through limited or complete excavation. All surface disturbance must be reclaimed within 1 year to meet the original conditions.

#### **Beef Basin ACEC (72,880 acres)**

The Beef Basin ACEC is shown in revised figure 2-5. Under alternative D, this area would be managed to protect cultural resources, and to provide the maximum opportunity for utilizing the information potential, conservation, and public values of cultural resources (see glossary). The Beef Basin ACEC would also be designated to protect scenic values under the 4333 program.

The ACEC is completely overlapped by a natural succession area. The special conditions given below are in addition to those developed for natural succession areas and take precedence.

Surface disturbance will be prevented to the maximum extent possible to preserve and protect cultural resources. Both direct and indirect impacts to cultural resources will be avoided. Cultural properties listed, or eligible for listing, on the National Register would be avoided by a minimum of 250 feet. If avoidance is not possible, impacts will be mitigated through limited or complete excavation. All surface disturbance must be reclaimed within 1 year to meet the original conditions.

Recreational use will be restricted if cultural resources are being damaged. If damage cannot be prevented, impacts will be mitigated through limited or complete excavation. In addition, a long-term stabilization and interpretation program will be implemented.

#### **Cedar Mesa ACEC (404,710 acres)**

The Cedar Mesa ACEC is shown in revised figure 2-5. The Cedar Mesa ACEC corresponds with the Cedar Mesa Archaeological District shown in figure 2-10. It includes the Grand Gulch archaeological district (4,240 acres). The Valley of the Gods ACEC (for scenic values under the 4333 program) falls entirely within the Cedar Mesa ACEC, and the Scenic Highway Corridor ACEC (also for scenic values) overlaps the Cedar Mesa ACEC.

The Cedar Mesa ACEC would be managed under alternative D to protect cultural resources, and to provide the maximum opportunity for utilizing the informational potential, public values, and conservation of cultural resources (see glossary). The Cedar Mesa ACEC would also be designated to protect scenic values under the 4333 program.

The ACEC is completely overlapped by natural succession areas; the special conditions given below are in addition to those developed for natural succession areas and take precedence.

Surface disturbance will be prevented to the maximum extent possible to preserve and protect

cultural resources. Both direct and indirect impacts to cultural resources will be avoided. Cultural properties listed, or eligible for listing, on the National Register would be avoided by a minimum of 250 feet. If avoidance is not possible, impacts will be mitigated through limited or complete excavation. All surface disturbance must be reclaimed within 1 year to meet the original conditions.

No grazing, range improvements or wildlife habitat improvements will be allowed within the Grand Gulch archaeological district.

Recreational use will be restricted if cultural resources are being damaged. If damage cannot be prevented, impacts will be mitigated through limited or complete excavation. In addition, a long-term stabilization and interpretation program will be implemented.

#### National Register Cultural Properties and Archaeologic Districts (416,850 acres)

National Register cultural properties and archaeological districts and eligible properties and districts are listed in table 2-2 and shown in figure 3-15. Some are in natural succession areas. For these areas, the special conditions given are in addition to the vegetation special conditions, which take precedence.

Both direct and indirect damage to National Register cultural properties and archaeological districts and eligible properties and districts will be avoided by 250 feet to the extent possible without curtailing valid rights. If avoidance is not possible, impacts will be mitigated through limited or complete excavation.

#### **RECREATION**

##### Outstanding Natural Areas (281,200) acres

Nine areas, listed in revised table 2-6 and shown in revised figure 2-5, would be designated as ONAs. ONAs would be protected and managed to meet the requirements of 43 CFR 8352. They would be used to emphasize outdoor recreation in a natural setting.

The ONAs are all within natural succession areas and would be managed under the special conditions developed for those areas.

##### Developed Recreation Sites (250 acres)

Developed recreation sites are listed in table 3-13 and shown in figure 3-17. Special conditions given are those necessary to protect the Federal Government's investment in capital improvements and facilities.

The developed recreation sites will not be used for minerals exploration, development, or production, or for grazing purposes, range improvements, or watering of livestock.

No private or commercial harvest of woodland products will be allowed, except limited onsite collection of dead fuelwood for campfires.

#### **VISUAL RESOURCES**

##### Lockhart Basin ACEC (56,660 acres; 41,300 acres outside the natural succession area)

The Lockhart Basin ACEC is shown in revised figure 2-5. Under alternative D, it would be managed to protect scenic quality as viewed from the Needles and Canyonlands overlooks on Hatch Point in the Grand Resource Area.

The ACEC overlaps part of an identified natural succession area; within that area, the special conditions for natural succession areas take precedence.

The area will be managed as VRM class I. Only activities that meet class I objectives will be allowed.

No surface occupancy or surface disturbance from mechanized or motorized equipment will be allowed on any lease or permit. Vehicular use will be allowed only on existing roads and trails.

In an ACEC, a plan of operations is required for any activity related to mining that is not casual use. Surface disturbance will be kept to the minimum necessary to allow claimants to exercise their legal rights.

Grazing will be allowed at present levels.

Disturbed areas will be revegetated with only native plants; revegetation must be successful within 5 years (the standard reclamation bond period) to visually match the initial conditions.

**Scenic Highway Corridor (60,220 acres; 13,020 acres outside natural succession areas).**

The Scenic Highway Corridor ACEC is shown in revised figure 2-5 and corresponds with the scenic corridor described in the U-95 Highway Corridor Study [BLM, et al., 1978]. Under alternative D, this area would be managed to protect scenic values.

The ACEC partially overlaps natural succession areas; 13,020 acres fall outside of the natural succession areas. Part of the ACEC overlaps the White Canyon, Cedar Mesa and the Valley of the Gods ACECs. The special conditions given below are in addition to those developed for natural succession areas or the other two ACECs and take precedence.

The 13,020 acres outside of the natural succession area will be managed under the special conditions for the natural succession area. Surface disturbance will be prevented to the maximum extent possible to preserve and protect visual resources. All surface disturbance must be reclaimed within 1 year to meet the original conditions.

**White Canyon ACEC (175,810 acres; 27,500 acres outside natural succession areas).**

The White Canyon ACEC is shown in revised figure 2-5. Under alternative D, this area would be managed to protect scenic values.

The ACEC overlaps part of an identified natural succession area; within that area, the special conditions for natural succession areas take precedence. The ACEC partially overlaps the Scenic Highway Corridor ACEC; within that area, the special conditions for the Scenic Highway Corridor ACEC take precedence.

The 27,500 acres outside of the natural succession area will be managed as VRM class I. Only

activities that meet class I objectives will be allowed.

No surface occupancy or surface disturbance from mechanized or motorized equipment will be allowed on any lease or permit. Vehicular use will be allowed only on existing roads and trails.

In an ACEC, a plan of operations is required for any activity related to mining that is not casual use. Surface disturbance will be kept to the minimum necessary to allow claimants to exercise their legal rights.

Grazing will be allowed at present levels.

Disturbed areas will be revegetated with only native plants; revegetation must be successful within 5 years (the standard reclamation bond period) to visually match the initial conditions.

**Valley of the Gods ACEC (38,360 acres).**

The White Canyon ACEC is shown in revised figure 2-5. Under alternative D, this area would be managed to protect scenic values.

The Valley of the Gods ACEC falls entirely within a natural succession area and entirely within the Cedar Mesa ACEC. The following special conditions are in addition to those developed for the Cedar Mesa ACEC, and take precedence.

No range improvements or wildlife habitat improvements will be allowed within the ACEC.

**LANDS**

Existing special land use leases carry conditions to ensure that the public lands remain suitable for the purpose for which the lease was issued. Special conditions would be applied to other land use activities consistent with these prior lease rights. Mineral leases issued under this alternative would carry special conditions as indicated in revised table S-1. Existing rights-of-way would remain in effect with stipulations in place when issued.

Special conditions that would be applied to protect existing special land use leases under alternative D are as follows.

#### **Bluff Airport Lease (400 acres)**

Uses of the lands now covered by the Bluff Airport lease will be allowed only when consistent with the use of the leased land for airport purposes. Use of the land for extraction or production of natural resources, including grazing, will be allowed only with the consent of the airport. The party wishing to use the land must file with the FAA and will be bound by FAA regulations, Part 77, "Objects Affecting Navigable Airspace."

#### **Recapture Lake R&PP Lease (20 acres)**

There will be no surface occupancy in the developed area. In the remainder of the R&PP lease, development or exploration activities will be allowed from November 1 to March 31. The seasonal restriction does not apply to maintenance or operation of a facility or grazing operation.

#### **Blanding Education Center R&PP Lease (140 acres)**

There will be no surface occupancy of the lease area except as authorized in the R&PP lease.

#### **Material Site Rights-of-Way (900 acres)**

The seven material site rights-of-way (shown in figures 3-5 and 3-6) are segregated from mineral entry as long as the right-of-way is in effect. When relinquished by the grantee, the lands will be reopened to mineral entry.

#### **ALTERNATIVE E**

The revised mitigation requirements for alternative E are printed in their entirety.

#### **INTRODUCTION**

The following special conditions have been developed by the interdisciplinary team to mitigate potential adverse environmental impacts caused by surface disturbing activities, while meeting the overall objectives of alternative

E. These special conditions are considered to be a part of alternative E, and the analysis of environmental impacts in chapter 4 takes them into account.

These special conditions are meant as general guidelines (both for analysis purposes and to guide development of specific project stipulations). They may not apply to all management actions given in revised table 2-7.

#### **Floodplains and Riparian/Aquatic Areas (6,000 acres)**

Major floodplains and riparian/aquatic areas are shown in figures 3-9 and 3-12. All floodplains and riparian/aquatic areas are managed in accordance with Executive Orders 11988 and 11990 and the Endangered Species Act. Acreage was determined using a 100-foot corridor. These special conditions would be applied to riparian areas wherever they occur, and would not be applied to non-riparian areas within the estimated corridor. Some of these areas are in ROS classes P, SPNM, and SPM; the special conditions given below are in addition to the ROS special conditions.

No surface occupancy (except vehicular use of existing roads and trails), surface occupancy, or structural development (except fences) will be allowed within actual floodplains or riparian/aquatic areas.

Take-down panels or water gates will be installed on all fences which cross intermittent or perennial stream channels.

Suppression will be used for fires to protect aquatic habitat in SPNM and SPM ROS class areas.

#### **Sensitive Soils Areas (195,000 acres; sensitive soils: 45,000 acres)**

Within the identified areas, which total 195,000 acres (figure 3-9), approximately 23 percent (45,000 acres) of the soils are classified as sensitive. Sensitive soils are those on sloping to steep terrain with badland and gypsumland soils. They are subject to erosion and difficult to revegetate. Not all soils within these areas are sensitive. If there is any question



as to whether soils within a given project area are or are not sensitive, the operator should consult the BLM. The sensitive soils areas fall in ROS classes SPNM, SPM, RN, and R; the special conditions given below are in addition to the ROS special conditions.

Construction and development are to be avoided where possible in areas with the following characteristics: slopes in excess of 10 percent, soils high in clay content, and soils high in salt or gypsum content. Operations will be located so as to reduce erosion and improve the opportunity for revegetation within areas of sensitive soils.

Prior to commencement of surface disturbing activities, the operator will visit the area with the BLM surface protection specialist, who will identify areas of sensitive soils for the operator.

Grading operations will be allowed only when soils are dry. Cross-country travel or construction activity will be allowed only when soils are dry or frozen or have snow cover.

New roads will be constructed so as to avoid areas of sensitive soils where possible. In areas of sensitive soils where roads must be allowed, new roads will be constructed with water bars and graded to spread drainage, instead of channeling runoff. No road grades in excess of 15 percent will be allowed; no surface disturbance from vehicle chains or leads will be allowed on slopes greater than 15 percent. No vehicular access will be allowed across slopes in excess of 25 percent.

Reclamation on sites with sensitive soils will require grading using slopes of 5 percent or less where possible, and grading the site so as to collect water for revegetation onsite.

Revegetation will be with adapted native species and prostrate *Kocnia*, where allowed by vegetation special conditions.

#### Sensitive Slopes (acreage undetermined)

This stipulation applies only to broad-scale land treatments (vegetation manipulations)

because of the large area involved. Under alternative E, it would apply only to specific portions of these areas where the ground slope is greater than 10 percent. In areas within ROS class P or SPNM, the ROS special conditions will take precedence.

Vegetation manipulation techniques on slopes greater than 10 percent will be limited to chemical treatments and broadcast seedings; chainings, railings, or other surface disturbing methods will not be allowed.

#### VEGETATION

##### Bridger Jack Mesa and Lavender Mesa ACECs (5,930 acres)

The Bridger Jack and Lavender Mesa ACECs are shown in revised figure 2-6. Under alternative E, the ACECs would be managed to meet the requirements of 43 CFR 2071.1 to use the lands for research and experiment purposes to provide a baseline for rangeland research of relict and near-relict plant communities. Both ACECs are in ROS class SPNM. The following special conditions are in addition to the ROS special conditions and take precedence.

No surface occupancy or disturbance by mechanized or motorized equipment will be allowed, except helicopter access for scientific study. All surface disturbance will be subject to VRM class I objectives. Foot and horseback access will be allowed for scientific study purposes.

Disturbed areas will be revegetated with native plant species naturally occurring on the mesa top. Rehabilitation must be successful within 5 years (the standard reclamation bond period) to visually match pre-existing conditions.

No grazing (including grazing by pack animals) will be allowed. No land treatments or facilities will be allowed, except test plots or facilities necessary for scientific study of relict or near-relict plant communities. No watershed control structures will be allowed.

No special purpose leases or permits, other than minerals leases, will be allowed; no surface occupancy will be allowed within the ACECs. In

an ACEC, a plan of operations is required for any activity related to mining that is not casual use.

No private or commercial harvest of woodland products will be allowed, except limited onsite collection of dead fuelwood for campfires.

Recreational use will be limited through a permit system if needed to prevent resource damage to the relict and near-relict plant communities, or if recreational use exceeds the capability of the ACECs to absorb recreational impacts.

Conditional suppression will be used for fires.

## **WILDLIFE**

### **Seasonal Wildlife Protection Areas**

Under alternative E, crucial big game habitats would be subject to special conditions regulating use during certain seasons. These special conditions apply in addition to any other stipulations or conditions in effect for that area.

The Area Manager may grant exceptions on a case-by-case basis during any year if it can be shown that (1) legal rights would be curtailed; (2) the animals are not present in a specific project location in a given year; or (3) the activity can be conducted so as not to adversely affect the animals.

#### **Bighorn Sheep Lambing and Rutting Areas (329,750 acres)**

Part of the bighorn crucial habitat area falls in ROS class P and SPNM. The special conditions given below are in addition to the ROS special conditions, which take precedence.

Use of the crucial bighorn sheep habitat (figure 3-11) will be limited during the lambing season (April 1 to July 15 annually) and the rutting (mating) season (October 15 to December 31 annually). During these periods no activities may take place which require a continued human presence (over 12 hours) within the area; involve sudden loud noises (such as detonation of a surface charge) or sustained noise (such as a

chain saw or diesel generator); or require the use of low-flying aircraft.

#### **Antelope Fawning Area (12,960 acres)**

The antelope crucial habitat area is not subject to the ROS special conditions.

Use within the crucial antelope habitat (figure 3-11) will be limited during the fawning season (May 15 to June 30 annually). During this period no activities may take place which require a continued human presence (over 12 hours) within the area; involve sudden loud noises (such as detonation of a surface charge) or sustained noise (such as a chain saw or diesel generator); or require the use of low-flying aircraft.

#### **Deer Winter Range (197,550 acres)**

Part of the deer crucial winter range areas fall in ROS class SPNM. The special conditions given below are in addition to the ROS special conditions, which take precedence.

Use within the crucial deer winter habitat areas (figure 3-12) will be limited during periods of critical winter use (December 15 to April 30 annually). During this period no surface disturbing activities that would remove deer forage and browse plants may take place in these areas. During this period no activities may take place which require a continued human presence (over 12 hours) within the area; involve sudden noises (such as detonation of a surface charge) or sustained noise (such as a chain saw or diesel generator); or require the use of low-flying aircraft.

Hunting during a recognized hunting season established by UDWR will be allowed.

#### **Identified Mesa Tops, Bighorn Sheep (56,740 acres)**

Five mesa tops within the crucial bighorn sheep habitat (figure 3-11) have been identified as areas of potential conflict. Conflict could occur between bighorn and activities that cause surface disturbance resulting in removal of critical forage species.

Parts of the identified mesa tops fall in ROS classes SPNM; the special conditions given below are in addition to the ROS special conditions, which take precedence.

Onsite mitigation will be required for projects that disturb or remove forage and browse species used by desert bighorn; the purpose of the mitigation is to replace the food lost.

In addition to standard reclamation practices, revegetation of disturbed areas must be accomplished using native plant species palatable to bighorn, and must be successful within 5 years.

Grazing uses will not be allowed. This includes range development projects and land treatments.

#### Crucial Deer Winter Range, Sagebrush Areas (9,800 acres)

Certain sagebrush parks within crucial deer winter range areas (figure 3-12) have been identified as providing a concentrated food source for wintering deer. Large-scale removal could cause a significant loss of winter forage for the deer. The areas fall within various ROS classes; the special conditions given here are in addition and take precedence.

No land treatments will be allowed.

#### **CULTURAL RESOURCES**

##### Alkali Ridge ACEC (35,890 acres)

The Alkali Ridge ACEC is shown in revised figure 2-6. Under alternative E, it would be managed to protect cultural resources. The Alkali Ridge ACEC (35,890 acres) would be managed so as to provide maximum opportunity for utilizing the informational potential and public values of cultural resources (see glossary). The ACEC does not fall in ROS class P or SPNM. The ROS special conditions do not apply. Riparian areas overlap part of the Alkali Ridge ACEC; the special conditions for floodplains and riparian/aquatic areas take precedence.

Surface disturbance will be minimized so as to provide maximum opportunity to manage cultural resources as specified above. Both direct and

indirect impacts to cultural resources will be avoided. The ACEC contains the Alkali Ridge NHL. Within the NHL, cultural properties listed, or eligible for listing, on the National Register would be avoided by a minimum of 200 feet. Within the remainder of the ACEC, cultural properties listed, or eligible for listing, on the National Register would be avoided by a minimum of 100 feet. If avoidance is not possible, impacts will be mitigated through limited or complete excavation.

Surface disturbance must be successfully reclaimed within 5 years. Vehicular access will be allowed only on existing roads and trails.

Grazing will be allowed at existing levels.

##### Shay Canyon ACEC (1,770 acres)

The Shay Canyon ACEC is shown in revised figure 2-6. Under alternative E, it would be managed to protect cultural resources. The ACEC contains a special emphasis area along Upper Indian Creek (200 acres).

The Shay Canyon ACEC (1,770 acres) would be managed so as to provide maximum opportunity for utilizing the conservation and public values of cultural resources (see glossary). The ACEC does not fall in ROS class P or SPNM. The ROS special conditions do not apply. Riparian areas overlap part of the Shay Canyon ACEC; the special conditions for floodplains and riparian/aquatic areas take precedence.

Surface disturbance will be minimized so as to provide maximum opportunity to manage cultural resources for the uses specified above. Both direct and indirect impacts to cultural resources will be avoided. Cultural properties listed, or eligible for listing, on the National Register would be avoided by a minimum of 100 feet. If avoidance is not possible, impacts will be mitigated through limited or complete excavation.

Surface disturbance must be successfully reclaimed within 5 years. The area will be managed as VRM class I. Vehicular access will be allowed only on existing roads and trails.

Grazing will be allowed at existing levels. New land treatments and construction of new range improvements will not be allowed. Maintenance of existing range improvements will be allowed using methods that cause only minimal impacts.

The ACEC will be excluded from private or commercial harvest of woodland products, except limited onsite collection of dead fuelwood for campfires will be allowed.

Within the Upper Indian Creek special emphasis area (200 acres), management to protect riparian and aquatic habitat will be emphasized. The special emphasis area is a 200-foot-wide corridor centered on Indian Creek.

It will be subject to the special conditions for floodplains and riparian/aquatic areas. In addition, the following special conditions will apply. Grazing will be managed so as to protect riparian and aquatic habitats from degradation.

#### Cedar Mesa ACEC (323,760 acres)

The Cedar Mesa ACEC is shown in revised figure 2-6. It includes two special emphasis areas: Grand Gulch (49,130 acres) and Valley of the Gods (36,800 acres). The Scenic Highway Corridor ACEC overlaps 21,380 acres; in this area, the special conditions developed for the Scenic Highway Corridor ACEC take precedence. Riparian areas overlap part of the Cedar Mesa ACEC; the special conditions for floodplains and riparian/aquatic areas take precedence.

Under alternative E, the Cedar Mesa ACEC would be managed for scenic values, natural values associated with primitive recreation, and for cultural resources. It would be managed to provide the maximum opportunity for the informational potential, public values, and conservation of cultural resources (see glossary). The ACEC contains both ROS class P and SPNM. The special conditions given below are in addition to the ROS special conditions and take precedence.

Both direct and indirect damage to cultural resources will be avoided. Cultural properties listed, or eligible for listing, on the National Register would be avoided by a minimum of 150

feet. Where avoidance is not possible, damage will be mitigated through limited or complete excavation.

Conditional suppression will be used for fires.

The Grand Gulch special emphasis area will be managed to protect scenic values, natural values associated with primitive recreation, and cultural values. The Valley of the Gods special emphasis area will be managed to protect scenic values. The Grand Gulch and Valley of the Gods special emphasis areas and the P ROS class areas within the ACEC will be protected from surface disturbance to the maximum extent possible. These areas will be managed as follows.

These areas will be segregated from mineral entry. No surface disturbance from minerals prospecting, exploration, or development will be allowed, to the extent possible without curtailing valid rights. No other type of surface use or motorized access or development will be allowed.

The area will be managed as VRM class I. All surface disturbance will be subject to class I objectives.

Surface disturbance will be limited to that which can be successfully reclaimed within 1 year to visually match the initial conditions. All revegetation must be with native species which naturally occur in the vicinity.

Grazing will be allowed at present levels; the existing grazing exclusion in Grand Gulch (11,200 acres) will be maintained. Range projects or land treatments will not be allowed.

No private or commercial harvest of woodland products will be allowed, except limited onsite collection of dead fuelwood for campfires.

Recreational use restrictions will be imposed if cultural resources or scenic values are being damaged.

The remainder of the Cedar Mesa ACEC (195,330 acres) will be managed under the special conditions developed for the SPNM ROS class, with the following exceptions. Vehicular use will be allowed only on designated roads and trails.

Private or commercial harvest of woodland products will be allowed in designated areas, except limited onsite collection of dead fuelwood for campfires will be allowed throughout the area.

#### Hovenweep ACEC (1,500 acres)

The Hovenweep ACEC is shown in revised figure 2-6. Under alternative E, it would be managed to protect cultural resources and wildlife values. It includes two special emphasis areas: Cajon Pond (10 acres) and a visual protection zone (880 acres).

The Hovenweep ACEC (1,500 acres) would be managed so as to provide maximum opportunity for utilizing the informational potential and public values of cultural resources (see glossary). The ACEC does not fall in ROS class P or SPNM. The ROS special conditions do not apply.

Surface disturbance will be minimized so as to provide maximum opportunity to manage cultural resources as specified above. Both direct and indirect impacts to cultural resources will be avoided. Within the ACEC, cultural properties listed, or eligible for listing, on the National Register would be avoided by a minimum of 100 feet. If avoidance is not possible, impacts will be mitigated through limited or complete excavation.

Surface disturbance must be successfully reclaimed within 5 years. Vehicular access will be allowed only on designated roads and trails.

Grazing will be allowed at existing levels. New range improvements or land treatments will be allowed.

The ACEC will be excluded from private or commercial use of woodland products, including onsite collection of wood for campfires.

Conditional suppression will be used for fires.

The visual protection zone special emphasis area (880 acres) will be managed with the additional special conditions. This area lies adjacent to the Hovenweep NM. This area will be managed with no surface occupancy allowed, to the extent possible without curtailing valid rights. No

grazing improvements or land treatments would be allowed in this area.

The Cajon Pond special emphasis area (10 acres) contains Cajon Pond which provides important riparian habitat for waterfowl. It will be managed to protect wildlife habitat. It will be subject to the special conditions for floodplains and riparian/aquatic areas. In addition, the following special conditions will apply.

No surface occupancy or surface disturbance will be allowed within the Cajon Pond special emphasis area during the shorebird and waterfowl courtship and nesting season (March 1 through June 30 annually).

Within the Cajon Pond special emphasis area, livestock will be excluded from the fenced portion (about 1 acre).

#### National Register Cultural Properties and Archaeologic Districts (372,010 acres)

National Register cultural properties and archaeologic districts and eligible properties and districts are listed in revised table 2-2 and shown in figure 3-15. Some are in ROS class P or SPNM. For these areas, the special conditions given are in addition to the ROS special conditions, and the ROS special conditions take precedence.

Both direct and indirect damage to National Register cultural properties and archaeologic districts and eligible properties and districts will be avoided to the extent possible without curtailing valid rights. Cultural properties listed, or eligible for listing, on the National Register would be avoided by a minimum of 100 feet. If avoidance is not possible, impacts will be mitigated through limited or complete excavation.

#### **RECREATION**

##### ROS Classes

These special conditions are necessary to ensure that specific areas are managed to maintain or protect certain ROS classes. These special conditions are intended to maintain most P class

areas in SJRA and SPM class areas in the San Juan River SRMA, and to protect most SPNM class areas where possible. ROS classes are shown in figure 3-16.

#### **Primitive (P) Class (196,040 acres)**

Under alternative E, the ROS P class area would be managed to be essentially free of evidence of human use and to maintain an environment of isolation (not more than 10 group encounters per day). Levels of management and use would be aimed at maintaining natural ecosystems. These special conditions would apply to all P class areas except those at Squaw and Cross Canyons near the Colorado state line.

The area will be managed as VRM class I. All surface disturbance will be subject to VRM class I objectives. Surface disturbance will be limited to that which can be reclaimed within 1 year to visually match pre-existing conditions.

No surface disturbance from minerals prospecting, exploration, or development will be allowed, to the extent possible without curtailing valid rights. No other type of surface use or motorized access or development will be allowed.

Grazing will be maintained at past 5 years average licensed use (1979-1984), pending completion of monitoring studies. New land treatments will not be allowed.

No private or commercial harvest of woodland products will be allowed, except limited onsite collection of dead fuelwood for campfires.

Cultural resources will be allowed to remain subject to natural forces.

Only native plant and wildlife species will be introduced.

Conditional suppression will be used for fires. Fires will be allowed to burn unless they threaten life or property. Motorized suppression methods will be used only if necessary to protect life or property.

#### **Semiprimitive Nonmotorized (SPNM) Class (505,700 acres)**

Under alternative E, the ROS SPNM class area would be managed to provide a predominantly natural environment, with limited evidence of human use and restrictions and, where possible, to provide an environment of isolation (not more than 20 group encounters per day). Reclamation of surface disturbing activities would be required to achieve a natural appearance within 5 years after project completion. Levels of management and use would be aimed at protecting natural ecosystems where feasible.

These special conditions would apply to all SPNM class areas, except those at Squaw and Cross Canyons near the Colorado state line.

Surface disturbance from minerals prospecting, exploration, or development will be reclaimed to achieve a natural appearance within 5 years after project completion, to the extent possible without curtailing valid rights.

Access routes will be completely rehabilitated after project completion; however, certain routes may be left for continued access at the request of BLM.

Construction of development projects will be allowed only so long as they are made to blend with the natural character of the land; surface disturbance will be reclaimed to achieve a natural appearance within 5 years of project completion.

Grazing will be maintained at the past 5 years average licensed use (1979-1984), pending completion of monitoring studies. Facilities and land treatments necessary to maintain adequate distribution, seasons of use, and grazing systems, will be allowed only so long as they are made to blend with the natural character of the land.

Venicular access will be allowed only on existing roads and trails. Within SRMAs, vehicular access will be allowed only on designated roads and trails.

No private or commercial harvest of woodland products will be allowed, except limited onsite collection of dead fuelwood for campfires.

Only those cultural resources management activities that blend with the natural character of the land will be allowed.

Natural fires will be allowed to burn unless they threaten life or property; other fires and all fires in riparian areas will be suppressed; nonmotorized suppression methods will be utilized where possible.

#### **Roaded Natural (RN) Class On Mancos Mesa (9,430 acres)**

Under alternative E, the RN class area on the Mancos Mesa would be closed to ORV use to protect the adjacent P class areas. In an area closed to ORV use, a plan of operations is required for any activity related to mining that is not casual use.

#### **Semiprimitive Motorized (SPM) Class Within the San Juan River SRMA (9,380 acres)**

Under alternative E, the SPM class area within the San Juan River SRMA would be managed under the special conditions given above for P class areas, except that motorized boat use on the San Juan River would be allowed. This area, shown in figure 3-17, would be managed to maintain an environment of isolation insofar as allowed by the river permit and patrol system. Levels of management and use would be aimed at maintaining safety and the riverine ecosystem.

The special conditions given below are in addition to, and take precedence over, those for P class areas.

The area will be segregated from mineral entry, and surface disturbance from mining activities on existing claims will be limited to the extent possible without curtailing valid existing rights. In an area closed to ORV use, a plan of operations is required for any activity related to mining that is not casual use.

No vehicular access will be allowed, but motorized boat use on the San Juan River will be allowed.

#### **Dark Canyon ACEC (62,040 acres)**

The Dark Canyon ACEC is shown in revised figure 2-6 and corresponds to the existing primitive area. Under alternative E, it would be managed for natural values associated with primitive recreation.

The ACEC is in ROS class P or SPNM. The ACEC will be managed under the special conditions developed for P ROS class. The special conditions given below are in addition to the ROS special conditions and take precedence.

The ACEC would remain segregated from mineral entry.

Surface disturbance will be limited to that which can be successfully reclaimed within 1 year to visually match the initial conditions. All revegetation must be with native species which naturally occur in the vicinity.

Grazing will be excluded. No range projects or land treatments will be allowed.

No new wildlife projects will be implemented.

Recreational use restrictions will be imposed if natural values are being damaged.

#### **Butler Wash and Indian Creek ACECs.**

The Butler Wash ACEC (13,870 acres) and Indian Creek ACEC (13,100 acres) are shown in revised figure 2-6. Under alternative E, they would be managed for scenic values.

Almost all of the ACECs are in ROS class P or SPNM. The two ACECs would be managed under the special conditions developed for ROS class P. The special conditions given below are in addition to the ROS special conditions and take precedence.

The ACECs would be segregated from mineral entry.

Surface disturbance will be limited to that which can be successfully reclaimed within 1 year to visually match the initial conditions. All revegetation must be with native species which naturally occur in the vicinity.

Grazing will be allowed at present levels. No range projects or land treatments will be allowed.

Recreational use restrictions will be imposed if scenic values are being damaged.

#### Scenic Highway Corridor ACEC (78,390 acres)

The Scenic Highway Corridor ACEC (78,390 acres) is shown in revised figure 2-6. Under alternative E, it would be managed for scenic values. Of the ACEC, 21,380 acres overlaps the Cedar Mesa ACEC.

None of the ACEC is in ROS class P or SPMN, but the ACEC would be managed under the special conditions developed for ROS class P. The special conditions given below are in addition to the ROS special conditions and take precedence.

The ACEC would be segregated from mineral entry.

Grazing will be allowed at present levels. New land treatments will not be allowed.

#### Pearson Canyon SRMA (1,920 acres)

The Pearson Canyon SRMA is shown in revised figure 2-6. Under alternative E, it would be managed for intensive recreational use. The SRMA is not in ROS class P or SPMN; the ROS special conditions given above do not apply. The SRMA would be segregated from mineral entry.

No surface disturbance from minerals prospecting, exploration, or development will be allowed, to the extent possible without curtailing valid rights. No other type of surface use, motorized access, or development will be allowed. Vehicular access will be allowed only on designated roads and trails.

Livestock grazing will be excluded (the SRMA is not now grazed), and range improvements, including land treatments, will not be allowed.

Recreational use restrictions will be imposed if natural values are being damaged.

Conditional suppression will be used for fires.

#### Developed Recreation Sites (250 acres)

Developed recreation sites are listed in table 3-13 and shown in figure 3-17. Special conditions given are those necessary to protect the Federal Government's investment in capital improvements and facilities.

The developed recreation sites will be segregated from mineral entry. They will not be used for minerals exploration, development, or production, or for grazing purposes, range improvements, or watering of livestock.

No private or commercial harvest of woodland products will be allowed, except limited onsite collection of dead fuelwood for campfires.

Vehicle use will be allowed only on designated roads and trails.

Suppression will be used for fires.

#### LANDS

Existing special land use leases carry conditions to ensure that the public lands remain suitable for the purpose for which the lease was issued. Special conditions would be applied to other land use activities consistent with these prior lease rights. Mineral leases issued under this alternative would carry special conditions as indicated in revised table S-1. Existing rights-of-way would remain in effect with stipulations in place when issued.

Special conditions that would be applied to protect existing special land use leases under alternative E are as follows.

#### Bluff Airport Lease (400 acres)

Uses of the lands now covered by the Bluff Airport lease will be allowed only when consistent with the use of the leased land for airport purposes. Use of the land for extraction or production of natural resources, including grazing, will be allowed only with the consent of the airport. The party wishing to use the land must file with the FAA and will be bound by FAA regulations, Part 77, "Objects Affecting Navigable Airspace."



Recapture Lake R&PP Lease (20 acres)

There will be no surface occupancy in the developed area. In the remainder of the R&PP lease, development or exploration activities will be allowed from November 1 to March 31. The seasonal restriction does not apply to maintenance or operation of a facility or grazing operation.

Blanding Education Center R&PP Lease (120 acres)

There will be no surface occupancy except as authorized in the R&PP lease.

Material Site Rights-of-Way (900 acres)

Material site rights-of-way (shown in figures 3-5 and 3-6) are segregated from mineral entry as long as the right-of-way is in effect. When relinquished by the grantee, the lands will be reopened to mineral entry.

## REVISIONS TO APPENDIX B - RMP MONITORING PLAN

### Page Revision

A-30 Column 1, paragraph 3 (beginning "Implementation also..."), line 4. Replace "range monitoring must take place for 5 years before grazing allocations can be adjusted on the basis of forage condition" with "all grazing use decisions must be issued within 5 years following publication of the Rangeland Program Summary."

A-35 Table AB-1, 4331, Natural History/Cultural Resources Management. Under Schedule, for "Designate properties to the National Register", replace "per fiscal year" with "for every two fiscal years. Priority will be given to archaeologic districts."

A-36 Table AB-1, 4341, Soil, Water and Air Management. Add a second element to this section, as follows:

Implementation: Prepare an SJRA Water Quality Monitoring Plan. Schedule: Within 2 years after completion of RMP. Monitoring Objective: Ensure compliance with State water quality standards and NEPA. Monitor for progress toward meeting RMP and activity plan objectives, and for identification of areas that need to have activity plans prepared for water quality management. Establish baseline and trends for both surface and ground water resources.

A-36 Table AB-1, 4342, Hazardous Waste Management. Insert a first element to this section, as follows:

Implementation: Conduct preliminary inventories to identify active and abandoned hazardous waste sites. Coordinate

### Page Revision

with state and federal agencies having jurisdiction. Determine if further assessment of potential hazardous wastes is needed. Schedule: Ongoing. Monitoring Objectives: Identify areas that require cleanup of hazardous wastes. Monitor site assessment and cleanup.

A-37 Table AB-1, 4351, Habitat Management. Paragraph 4 (beginning "Prepare management plans..."), line 2, replace "special designation areas" with "Cajon Pond special emphasis area of Hovenweep ACEC and upper Indian Creek special emphasis area of Shay Canyon ACEC".

Add a fifth element to this section, as follows:

Implementation: Conduct aquatic life assessments, wetland and riparian area inventories, and inventories for species of high federal interest. Schedule: Ongoing. Monitoring Objectives: Identify areas in poor condition that would benefit from application of detailed activity plans.

A-37 Table AB-1, 4352, Endangered Species Management. Add a second element to this section, as follows:

Implementation: Conduct inventories for T/E species known to occur in the region. Schedule: Ongoing. Monitoring Objectives: Identify habitat areas that would benefit from development of detailed management plans.

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## REVISIONS TO APPENDIX C - LIST OF APPLICABLE LAWS

<u>Page</u>	<u>Revision</u>
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A-40	Table AC-1, <u>Title 16, Conservation</u> . After the first entry under this title, insert "National Parks and Recreation Act of 1978; 16 U.S.C. 1 et seq.; 92 Stat. 3467; P.L. 95-625".
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<u>Page</u>	<u>Revision</u>
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A-42	Table AC-1, <u>Title 30, Mineral Lands and Mining</u> . After the last entry under this title, insert "Federal Oil and Gas Royalty Management Act of 1982; 30 U.S.C. 1701 et seq.; 96 Stat. 2447; P.L. 97-451".
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## REVISIONS TO APPENDIX G - VISUAL RESOURCE MANAGEMENT CLASSES

### Page Revision

A-59 Column 2, VRM Classes. Paragraph 1, line 3, replace "five" with "four".

A-60 Column 1, replace paragraph 2 (beginning "I One element...") with "Class I -- Objective. The objective of this class is to preserve the existing character of the landscape. This class provides for natural ecological changes; however, it does not preclude very limited management activity. The level of change to the characteristic landscape should be very low and must not attract attention."

A-60 Column 1, replace paragraph 3 (beginning "II The degree...") with "Class II -- Objective. The objective of this class is to retain the existing character of the landscape. The level of change to the characteristic landscape should be low. Management activities may be seen, but should not attract the attention of the casual observer. Any changes must repeat the basic elements of form, line, color, and texture found in the predominant natural features of the characteristic landscape."

A-60 Column 2, replace paragraph 1 (beginning "III The degree...") with "Class III -- Objective. The objective of this class is

### Page Revision

to partially retain the existing character of the landscape. The level of change to the characteristic landscape should be moderate. Management activities may attract attention but should not dominate the view of the casual observer. Changes should repeat the basic elements found in the predominant natural features of the characteristic landscape."

A-60 Column 2, replace paragraph 2 (beginning "IV The total...") with "Class IV -- Objective. The objective of this class is to provide for management activities which require major modification of the existing character of the landscape. The level of change to the characteristic landscape can be high. These management activities may dominate the view and be the major focus of viewer attention. However, every attempt should be made to minimize the impact of these activities through careful location, minimal disturbance, and repeating the basic elements."

A-60 Column 2, delete paragraph 3 (beginning "V This is an...").

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## REVISIONS TO APPENDIX H - SPECIAL MANAGEMENT DESIGNATIONS

### OVERVIEW

Appendix H has been completely rewritten for the final EIS and is printed here in its entirety.

The purpose of this appendix is to examine areas within San Juan Resource Area (SJRA) that were identified as having potential for special management, particularly areas considered to have potential for designation as areas of critical environmental concern (ACECs). Areas considered for outstanding-natural-area (ONA) or research-natural-area (RNA) designation are also discussed. The areas were identified by both BLM and the public. This appendix describes the areas and presents rationale as to why they were either considered as potential or proposed areas in the environmental impact statement (EIS) or considered not to have potential for special designation.

The revised preferred alternative proposes 10 areas for ACEC designation (revised figure 2-6). These areas total 501,000 acres, or 28 percent of SJRA. Four of these areas were contained in the preferred alternative in the draft RMP/EIS, based on identification by the RMP team. Two other areas proposed in the draft have been absorbed by larger proposed areas in the final RMP/EIS. The remainder are areas nominated by the public for ACEC designation or modified from public nominations. The preferred alternative does not include other types of special designations.

Revised alternative D proposes 11 areas for ACEC designation (revised figure 2-5); four of these areas were contained in draft alternative D, and one other was modified from the draft. Revised alternative D also proposes two areas for RNA designation and 9 areas for ONA designation; these are the same as in the draft. The ACECs

total 1,128,720 acres, or 63 percent of SJRA. The RNAs total 5,930 acres, or less than 1 percent of SJRA. The ONAs total 281,200 acres, or 16 percent of SJRA. Together the special designations under alternative D would cover 1,202,750 acres, or 68 percent of SJRA.

Alternative C, which remains unchanged from the draft, proposes six areas for ACEC designation and eight for ONA designation (figure 2-4). The ACECs under alternative C total 296,670 acres, or 17 percent of SJRA. The ONAs total 277,000 acres, or 16 percent of SJRA. Together the special designations under alternative C would cover 569,430 acres, or 32 percent of SJRA.

Alternative B, also unchanged from the draft, proposes two areas for RNA designation (figure 2-3), but no areas for other types of special designations. The two RNAs under alternative B cover 810 acres, or less than 1 percent of SJRA.

Alternative A, the existing situation, includes two primitive areas (figure 2-2) covering 99,850 acres, or less than 1 percent of SJRA. No other special designations currently exist.

Areas identified by the RMP team as preliminary potential ACECs were discussed in the management situation analysis (MSA). Two additional areas were identified by management and assessed in the draft EIS. Several areas, many overlapping, were nominated by the public in response to the draft EIS. Seven of these areas were analyzed in the final EIS to determine their potential for ACEC designation.

Preliminary potential ACECs identified in the MSA, along with the two potential ACECs identified by management and assessed in the draft



EIS, are shown in table AH-1. Areas nominated by the public for potential ACEC consideration are shown on table AH-2. Alternative areas considered as potential ACECs were shown in revised table 2-6 (see revisions to draft chapter 2).

The Federal Land Policy and Management Act of 1976 (FLPMA) provides for ACEC designation to provide special management attention to protect important historic, cultural, or scenic values, fish and wildlife resources, or other natural systems; or to protect people from natural hazards (43 USC 1702). There is no provision to designate an ACEC based solely on recreation opportunities. To qualify for ACEC designation, the resource values within an area must be relevant and important (BLM manual section 1617.8). To qualify for consideration as a potential ACEC to protect scenic values, an area must also be scenic quality A and unique or very rare within its physiographic province (BLM manual 8410, Visual Resource Inventory).

An ACEC is designated under the authority of 43 CFR 1610.7-2. The procedures for considering an area for ACEC designation are given in BLM manual section 1617.8. The RMP team identified candidate areas in the MSA as preliminary potential ACECs. Areas accepted by the District Manager for further consideration have been carried into the RMP/EIS as potential ACECs, and the environmental consequences of designation have been analyzed. Potential ACECs have been analyzed in at least one alternative, in accordance with manual section 1617.82. Where the benefits of designation are believed to outweigh adverse impacts to other resource values, the RMP team proposed the area for ACEC designation in the preferred alternative, and the State Director accepted the area for designation in the proposed RMP.

In the past, BLM has considered other types of special designations similar in intent to that of an ACEC. The RMP/EIS assesses the effects of designating certain areas as RNAs or ONAs (revised table 2-6). An RNA is managed under the requirements at 43 CFR 2071.1; an ONA under 43 CFR 8352. In the draft, BLM proposed two areas for RNA designation and considered areas for ONA designation under various alternatives, but did

not find any demonstrated benefit that would warrant proposing this type of designation in the preferred alternative. Since publication of the draft, in Utah BLM has replaced the RNA and ONA designations with the ACEC designation. The proposed RMP would designate ACECs but not RNAs or ONAs.

The following sections give rationale for disposition of the preliminary potential areas listed in the MSA, the potential areas carried into the RMP/EIS, and the areas nominated by the public in response to the draft. The areas are listed alphabetically, but have been grouped geographically in some cases. Alternative special conditions for use were developed for each area assessed in the RMP/EIS (see revisions to draft appendix I). The analysis of effects of designation assumed that the areas would be managed under the special conditions (revised appendix A) and in accordance with all applicable laws, executive orders, and regulations.

#### AREAS CONSIDERED FOR ACEC DESIGNATION

##### ALKALI RIDGE/MONTEZUMA CREEK/ALKALI CREEK

The general area of Alkali Canyon, Alkali Ridge, and Montezuma Canyon and its tributaries was identified in the MSA as a candidate ACEC for several different management programs. Alkali Ridge and the canyons on either side were identified as having important cultural resources under program 4331. The area is analyzed in the RMP/EIS as a potential ACEC under revised alternative D and as a proposed ACEC under revised alternative E.

In addition, the Montezuma Creek drainage basin was identified under program 4340 as having the potential to create a natural hazard because of downcutting. Sensitive soils in the Alkali Creek and Montezuma Creek drainages were also identified under program 4340 as presenting a potential natural hazard because of erosion. These were not carried forward into the EIS.

The Alkali Ridge cultural resources area, the Montezuma Creek hazardous drainage basin and the Montezuma Creek and Alkali Creek sensitive soils areas overlap areas that were considered in the MSA as preliminary potential ACECs under program

TABLE AH-1

## Preliminary Potential ACECs Identified in the Management Situation Analysis

Preliminary Potential ACEC in Management Situation Analysis				
Resource Management Program	Name	Acres	Resource Protected	Disposition
4322 Grazing Management	Bridger Jack Mesa	1,760 5,290	Near-relict plant community Near-relict plant community	Bridger Jack Mesa RNA under alternative B. Bridger Jack Mesa potential ACEC under alternative C; RNA under alternative D; proposed ACEC under alternative E.
	Lavender Mesa	640	Relict plant community	Lavender Mesa RNA under alternatives B and D; potential ACEC under alternative C; proposed ACEC under alternative E.
4331 Cultural Resources Management	Alkali Ridge	170,320	Archaeological values	Alkali Ridge potential ACEC under alternatives C and D; smaller area (35,890 acres) Alkali Ridge proposed ACEC under alternative E.
	North Abajo	65,450	Archaeological values	North Abajo potential ACEC under alternatives C and D; smaller area (1,770 acres) Shay Canyon proposed ACEC under alternative E.
	Grand Gulch	4,240	Archaeologic District	Grand Gulch potential ACEC under alternative C; part of Cedar Mesa potential ACEC under alternative D; part of Cedar Mesa proposed ACEC under alternative E.
	Hovenweep <sup>a</sup>	2,000	Archaeological values	Hovenweep potential ACEC under alternative D; smaller area identified by NPS (1,500 acres) Hovenweep proposed ACEC under alternative E.
4332 Wilderness Management	(See other resource programs)			
4333 Recreation/Visual Resources Management	Dark Canyon	62,040	Primitive Area - natural values associated with primitive recreation	Dark Canyon Primitive Area under alternative A; ONA (with Middle Point) under alternatives C and D; proposed ACEC under alternative E.
	Grand Gulch	55,000	Primitive Area and adjacent ROS P-class area - natural values associated with primitive recreation	Part of area is Grand Gulch Primitive Area under alternative A; ONA under alternative C; part of Cedar Mesa potential ACEC under alternative D; part of Cedar Mesa proposed ACEC under alternative E.

4340	Soil, Water and Air	Lockhart Basin	56,660	Scenic values	Lockhart Basin potential ACEC under alternatives C and D; part of area is Indian Creek proposed ACEC under alternative E.
		Recapture Dam Drainage Basin	7,000	Municipal watershed	Does not meet ACEC criteria. Special conditions for floodplains and riparian/aquatic habitat under alternatives B, C, D, and E.
		Montezuma Creek Drainage	165,000	Hazardous watershed conditions	Does not meet ACEC criteria. Special conditions for floodplains and riparian/aquatic habitat under alternatives B, C, D, and E.
		Indian Creek Drainage	25,000	Hazardous watershed conditions	Does not meet ACEC criteria. Special conditions for floodplains and riparian/aquatic habitat under alternatives B, C, D, and E.
		Comb Wash	6,240	Sensitive/hazardous soils	Does not meet ACEC criteria. Special conditions for floodplains and riparian/aquatic habitat under alternatives B, C, D and E, and for sensitive soils under alternatives C, D, and E.
		Butler/Cottonwood/Recapture Creeks	41,050	Sensitive/hazardous soils	Does not meet ACEC criteria. Special conditions for floodplains and riparian/aquatic habitat under alternatives B, C, D, and E, and for sensitive soils under alternatives C, D, and E.
		Montezuma/Alkali Canyons	87,450	Sensitive/hazardous soils	Does not meet ACEC criteria. Part of Alkali Ridge area (see 4331). Special conditions for sensitive soils under alternatives C, D, and E, and for sensitive soils under alternatives C, D, and E.
		Dark Canyon	62,040	Primitive Area - air quality related values	Does not meet ACEC criteria (see 4333).
4350	Wildlife Habitat	Grand Gulch	37,810	Primitive Area - air quality related values	Does not meet ACEC criteria (see 4333).
		Desert Bighorn Sheep Habitat Area	329,750	Crucial wildlife habitat - rutting and lambing	Does not meet ACEC criteria. Seasonal special conditions for crucial wildlife habitat under alternatives C and E. Part of area is Dark Canyon (see 4331).
		Dry Valley Antelope Habitat Area	34,000	Wildlife habitat	Does not meet ACEC criteria. Seasonal special conditions for crucial wildlife habitat under alternatives C and E.

TABLE AH-1 (Concluded)

Preliminary Potential ACEC in Management Situation Analysis				
<u>Resource Management Program</u>	<u>Name</u>	<u>Acres</u>	<u>Resource Protected</u>	<u>Disposition</u>
4350 Wildlife Habitat (Concluded)	Deer Winter Range	197,550	Crucial wildlife habitat - winter range	Does not meet ACEC criteria. Seasonal special conditions for crucial wildlife habitat under alternatives C and E.
	Riparian/Aquatic Areas	38,400	Wildlife habitat - 660-foot-wide corridor	Does not meet ACEC criteria. Special conditions for floodplains and riparian/aquatic habitat under alternatives B, C, D and E.
	Cajon Pond <sup>a</sup>	40	Wildlife habitat - waterfowl riparian area	Cajon Pond special emphasis area in Hovenweep proposed ACEC under alternative E. Special conditions for floodplains and riparian/aquatic habitat under alternatives B, C, D and E.

<sup>a</sup>These potential ACECs were not identified in the MSA but were analyzed in the draft RMP/EIS.

TABLE AH-2

## ACEC Nominations Submitted by the Public

<u>Name of area</u>	<u>Justification Provided for ACEC Designation</u>	<u>Disposition in RMP/EIS</u>
Arch Canyon	Visual quality, cultural resources and recreational values within the area proposed as an ONA under draft EIS alternative D.	Arch Canyon potential ONA under alternative D; part of the Cedar Mesa potential ACEC under alternative D and the Cedar Mesa proposed ACEC under alternative E.
Beef Basin	Scenic values between Canyonlands NP, Manti-LaSal NF, and Dark Canyon Plateau visible from the NP.	Beef Basin potential ACEC under alternative D; part of area is Butler Wash proposed ACEC under alternative E.
Beef Basin	Cultural resources and wildlife values between Canyonlands NP, Manti-LaSal NF and Dark Canyon.	Beef Basin potential ACEC under alternative D; part of area is Butler Wash proposed ACEC under alternative E.
Cajon Pond	Expand the 40 acre proposed ACEC to 250 acres.	Cajon Pond special emphasis area (10 acres) within Hovenweep proposed ACEC under alternative E.
Canyonlands Basin	Scenic values viewed from Canyonlands NP, Needles Overlook, or Canyonlands Overlook.	Part of area is Lockhart Basin potential ACEC under alternatives C and D; part of area is Indian Creek proposed ACEC under alternative E; part of area is North Abajo potential ACEC under alternatives C and D; part of area is Shay Canyon proposed ACEC under alternative E; part of area is Beef Basin (see above).
Canyonlands Basin	Cultural values for Canyonlands Basin and between Canyonlands NP and Harts Draw.	Part of area is Lockhart Basin potential ACEC under alternatives C and D; part of area is Indian Creek proposed ACEC under alternative E; part of area is North Abajo potential ACEC under alternatives C and D; part of area is Shay Canyon proposed ACEC under alternative E; part of area is Beef Basin (see above).
Cedar Mesa	Cultural, natural, recreational, wildlife and visual resources within the archaeological district proposed in draft EIS alternative D.	Cedar Mesa potential ACEC under alternative D; part of area is Cedar Mesa proposed ACEC under alternative E; part of area is Valley of the Gods (see below).
Comb Ridge	Visual and cultural resource values on Comb Ridge between Manti-LaSal NF and U.S. 163.	Part of the Cedar Mesa potential ACEC under alternative D.
Dark Canyon and Middle Point	Scenic, natural and cultural values within Dark Canyon and Middle Point.	Dark Canyon and Middle Point ONA under alternatives C and D; Dark Canyon is proposed ACEC under alternative E.
Dark Canyon	Natural values associated with primitive recreation in Dark Canyon and the surrounding ROS SPM- and SPM-class lands.	Part of area is Dark Canyon and Middle Point ONA under alternatives C and D; part of area is Beef Basin potential ACEC under alternative D; Dark Canyon is proposed ACEC under alternative E.

Desert Bighorn Sheep Habitat	Wildlife values in the crucial habitat area for desert bighorn sheep identified in the RMP/EIS.	Part of area is Dark Canyon proposed ACEC under alternative E; area managed with protective conditions for use under alternatives C, D and E.
Glen Canyon NRA	Scenic, natural, cultural and wildlife values within Glen Canyon NRA.	Special conditions for surface use on NPS managed land not considered in RMP/EIS.
Harts Draw	Natural and recreational values in Harts Draw.	Part of Canyonlands Basin (see above); part of the Canyon Basins proposed SRMA under alternative E.
Lockhart Basin-Indian Creek	Visual resources, and integrity of Canyonlands NP and Canyonlands Basin.	Lockhart Basin potential ACEC under alternatives C and D; part of area is Indian Creek proposed ACEC under alternative E.
Mesa Tops	Wildlife values on the five mesa tops identified in the RMP/EIS as part of the crucial bighorn sheep habitat.	Area managed with protective conditions for use under alternatives C, D and E.
Moki-Red Canyon Complex	Cultural values between Moki and Red Canyons adjacent to Glen Canyon NRA. Includes Mancos Mesa.	Moki-Red Canyon potential ACEC under alternative D; area managed with protective conditions for use under alternative E.
Natural Bridges	Scenic values viewed from Natural Bridges NM, including lands between the NM and Manti-LaSal NF.	Part of White Canyon potential ACEC under alternative D; part of area is Scenic Highway Corridor proposed ACEC under alternative E.
Nokai Dome-Mikes Canyon	Natural values adjacent to Glen Canyon NRA, including Nokai Dome, Mikes Canyon and Castle Creek.	Nokai Dome potential ACEC under alternative D.
Scenic Highway Corridor	Visual quality and recreational values within the boundary presented in the U-95 Scenic Corridor Study, with Comb Wash, Butler Wash, the Hole-in-the-Rock Trail, and White Canyon.	Scenic Highway Corridor potential ACEC under alternative D; part of area is Scenic Highway Corridor proposed ACEC under alternative E.
Scenic Corridor with White Canyon	Scenic and recreational values within the unobstructed view area of U-95, U-261 and U-263, including White Canyon and its tributaries.	Scenic Highway Corridor potential ACEC under alternative D; part of area is Scenic Highway Corridor proposed ACEC under alternative E.
Valley of the Gods	Scenic values between U.S. 163, U-261 and the rim of Cedar Mesa.	Part of Cedar Mesa (see above); Valley of the Gods potential ACEC under alternative D; Valley of the Gods special emphasis area within Cedar Mesa proposed ACEC under alternative E.
White Canyon Complex	Scenic, cultural, and recreational values between highway U-95, the Dark Canyon Plateau and Manti-LaSal NF.	White Canyon potential ACEC under alternative D; part of area is Scenic Highway Corridor proposed ACEC under alternative E.
White Canyon	Cultural, scenic and wildlife resources between U-95 and Dark Canyon.	White Canyon potential ACEC under alternative D; part of area is Scenic Highway Corridor proposed ACEC under alternative E.

4350. The Montezuma-Alkali Point crucial deer winter range, and the Montezuma Canyon riparian areas were identified as candidate areas under program 4350 in the MSA but were not carried into the RMP/EIS as potential ACECs. (See discussion under Crucial Wildlife Habitat and Riparian Areas, below.)

### Alkali Ridge

The Alkali Ridge area was identified as a candidate ACEC in the MSA under program 4331. The area has potential for ACEC management to recognize and protect archaeological resources present. Cultural resources in this area are regionally and nationally important because of the Basketmaker and Pueblo village sites, often reaching densities of 200 sites per square mile. Protection of the cultural resources found here is relevant because they are irreplaceable and extremely vulnerable. Oil and gas exploration and development, vandalism (pot hunting), road construction and maintenance, and vegetation manipulation projects for range improvement have threatened cultural resources in the past.

Within the candidate area, 170,320 acres are public lands, 21,040 acres are state lands, and 23,000 acres are privately owned. The Navajo Indian reservation forms the southern boundary, and U.S. Highway 191 and county roads form the western boundary. The northern and eastern boundaries, drawn along township lines, approximate the limits of the area having high site densities.

The area identified in the MSA (170,320 acres) is considered as a potential ACEC under alternatives C and D (figure 2-4 and revised figure 2-5). The impact analysis indicates that cultural resources would benefit from this type of designation. However, the beneficial effects to cultural resources are offset by the restrictions on oil and gas exploration and development.

Because of this, a smaller area (35,890 acres) is analyzed for ACEC potential in alternative E (revised figure 2-6). This area contains 35,890 acres of public land, 4,400 acres state land and 1,320 acres private land. It contains the two main canyon systems (Montezuma and Alkali Can-

yons) with Alkali Ridge between them. This area is believed to contain the highest density of quality sites, as evidenced by the Alkali Ridge National Historic Landmark (NHL).

The Alkali Ridge NHL, containing 2,030 acres, falls within both potential ACECs (figure 3-15); 80 acres of the NHL have been classified and segregated from mineral and agricultural entry.

### Montezuma Creek

Within the same general area, the drainage basin of Montezuma Creek and its tributaries was identified as a candidate ACEC in the MSA. The Montezuma Creek drainage presents a potential natural hazard that could result from erosion. However, it was not identified as a potential ACEC in the RMP/EIS because special management provisions were not found to be needed. The area contains about 165,000 acres of public land. It is shown in the MSA and extends generally from the Colorado state line to the crest of Alkali Ridge, along the length of Montezuma Creek.

Significant downcutting within the floodplain presents a natural hazard that could be a significant source of sediment to the Colorado River drainage basin. Sedimentation within the Colorado River drainage basin is of national concern because of its adverse effects on water users downstream. Surface disturbance within the drainage basin can substantially increase erosion rates and thereby increase the Colorado River system's sediment load. Erosion rates could remain high for several years, until vegetation is re-established or the surface stabilized with rock fragments or other debris.

The downcutting is believed to be caused by increased runoff from agricultural lands. Other surface disturbance in the area has been caused by minerals exploration and development but is not extensive.

The Montezuma Creek area contains important cultural resources. Sites have reportedly been lost because of the downcutting within the floodplain, which also affects existing structures near the stream channel.

Although the area does have the potential for a natural hazard, provisions of executive orders and regulations would be sufficient to protect the floodplain through mitigation measures applied to specific projects. The need to recognize the potential hazard has been carried into the RMP/EIS, and the EIS has been used to develop special conditions to protect both sensitive soils and floodplains. These would be applied to any land-use activity. The floodplain special conditions would be applied under alternatives B, C, D, and E; the sensitive soils special conditions, which would apply to about 50 percent of the Montezuma Creek drainage, under alternatives C, D, and E. See revised appendix A for the special conditions.

#### Montezuma Creek and Alkali Creek

Also within the same general area, the Montezuma Creek and Alkali Canyon sensitive soils area (figure 3-9) was identified in the MSA as a candidate ACEC. The sensitive soils area presents a potential natural hazard that could result from erosion; however, it was not identified as a potential ACEC in the RMP/EIS because the special conditions developed for sensitive soils are believed sufficient to provide proper management. The intensive level of management associated with ACEC designation was not found to be needed.

The area contains about 87,450 acres of public lands and several tracts of state and private lands, as shown in the MSA. It lies in two separate tracts: the drainage of Alkali Creek and Montezuma Canyon and its tributaries, Monument Canyon, Nancy Patterson Canyon and Squaw Canyon. The area is used for grazing, minerals exploration, and agriculture.

Badland and gypsumland soils in this area are intermixed with stable soils. About 23 percent of the soils in the area would be classified as sensitive; they are natural sources of relatively high levels of sediments and salts. Salinity and sedimentation within the Colorado River drainage basin are of national concern because of the adverse effects on water users downstream. Disturbing these sensitive soils can increase erosion rates substantially and thereby increase the Colorado River system's salt and

sediment load. Erosion rates can remain high for several years, until vegetation is re-established or the surface stabilized with rock fragments or other debris.

Although the area does have the potential for a natural hazard, sensitive soils could be protected through mitigation measures applied to specific projects. The need to recognize the potential hazard has been carried into the RMP/EIS, and the EIS has been used to develop special conditions to protect sensitive soils. These would be applied to any land-use activity under alternatives C, D, and E. The special conditions are given in revised appendix A.

#### ARCH CANYON

Arch Canyon was nominated by the public for ACEC designation to protect visual quality, cultural resources and recreation values within the area proposed as an ONA under draft alternative D. Arch Canyon was also among the drainages identified in the MSA as candidate ACECs for riparian values under program 4350.

BLM has considered this nomination for ACEC designation, but does not find that the area meets ACEC criteria. An area must be both scenic quality A and unique or very rare within its physiographic province for identification as a candidate potential ACEC for scenic values. Arch Canyon meets the first criterion, but not the second, as it is similar to other nearby canyons (for example, Mule, Fish, or Owl). Therefore, it has not been considered as a potential ACEC for scenic values.

The nomination also references cultural values in Arch Canyon. While significant archaeological resources exist in this area, the management guidance proposed for cultural resources (management common to all alternatives, revised chapter 2) and the special conditions developed for sites eligible for listing on the National Register would be sufficient to protect cultural values present; the intensive level of management associated with ACEC designation was not found to be needed.

The ACEC nomination is also based on recreation values. While an ACEC designation may be made



to protect natural, scenic or other resource values that would lead to recreation opportunities, the designation is not appropriate based on recreation values alone.

The RMP/EIS analyzes the impact of designating Arch Canyon as an ONA under alternative D (see draft table 2-6 and chapter 4, both as revised). Arch Canyon (revised figure 2-5) was identified in the MSA as a potential ONA on the basis of its natural and scenic values; it provides primitive recreation values in a relatively natural setting. In this RMP/EIS, the area is analyzed as a potential ONA under alternative D. The potential ONA contains about 4,200 acres, all public lands; it is bounded by the rim of Arch Canyon and by the Manti-LaSal National Forest (NF).

The impact analysis showed that no additional level of protection of scenic or recreation resources would be gained by making this designation.

The Arch Canyon riparian area was identified as candidate ACEC in the MSA but was not carried into the RMP/EIS as a potential ACEC. (See discussion under Riparian Areas, below.) However, Arch Canyon falls within the Cedar Mesa proposed ACEC analyzed in the final EIS under alternatives D and E. (See discussion under Cedar Mesa/Grand Gulch, below.)

#### **BEEF BASIN/BUTLER WASH**

Beef Basin was nominated by the public for ACEC designation for two reasons: to protect scenic values on public lands between Canyonlands National Park (NP), Manti-LaSal NF, and Dark Canyon Plateau visible from the NP and to protect cultural resources and wildlife values between Canyonlands NP, Manti-LaSal NF and Dark Canyon. Part of Beef Basin was identified in the MSA as a candidate ACEC for deer winter range under management program 4350.

BLM has considered this nomination for ACEC designation, and has assessed the area as a potential ACEC for scenic and cultural resource values (72,880 acres public land) under alternative D as revised in the final EIS. Part of the area nominated is proposed for designation as

the Butler Wash ACEC for scenic values (13,870 acres public land) under the revised preferred alternative and in the proposed RMP.

#### **Beef Basin**

The Beef Basin nomination was based in part on the cultural values present. BLM agrees that the area contains significant cultural resources. Several free-standing Anasazi towers, which were partially reconstructed and stabilized in the 1960s, dot the area. Cultural resources in this area are regionally and nationally important because of scientific uncertainties regarding the Anasazi culture. They are relevant because they are irreplaceable and vulnerable to damage through surface disturbance and vandalism. Major uses of the area are for cattle grazing, deer hunting, and off-road vehicle (ORV) recreation. No significant damage to cultural resources in Beef Basin is presently occurring from these uses.

The effects of designating the potential Beef Basin ACEC were assessed under revised alternative D. The benefits to cultural resources that would accrue from special management under the ACEC designation were found to be insignificant. Management of sites eligible for listing on the National Register would be covered by provisions of law; additional protection would be afforded under the special conditions for management developed under alternatives D and E (revised appendix A). In addition, all alternatives assessed established cultural resource management zones (see table 3-9 as revised) to provide cultural resource management objectives. It is believed that these levels of management prescriptions would be sufficient on their own to protect cultural resources in Beef Basin; the cultural properties present are not currently seen as threatened or at risk from resource development. Therefore, the area was not proposed as an ACEC to protect cultural values in the preferred alternative.

Beef Basin was also nominated to protect scenic values present. Within the Beef Basin nomination, an area of 15,650 acres (13,870 acres public land and 1,780 acres state land) meets the criteria for consideration as an ACEC for scenic values. An area must be both scenic

quality A and unique or very rare within its physiographic province for identification as a candidate ACEC for scenic values.

A re-evaluation of Beef Basin indicates that part of the area in the vicinity of Butler Wash (south of Canyonlands NP) does qualify for consideration as a potential ACEC. This area roughly corresponds with the Butler Wash Wilderness Study Area (WSA), but is slightly smaller. The area around Butler Wash has been reclassified as scenic quality A. The rock formations in this area are very similar to those found in Canyonlands NP, which contains some of the most unique landforms in the world [Shiozawa and Larson, 1980].

#### Butler Wash

The scenic values found in the Butler Wash area are relevant because special management attention is required to protect them and prevent irreparable damage. The scenic values are important to regional, national and international tourists who travel to Canyonlands NP and backpack into remote, natural areas adjacent to the park. Salt Creek, within the proposed ACEC, is one such area.

The Butler Wash proposed ACEC (13,870 acres) is located south of and adjacent to Canyonlands NP and includes Butler Wash, the Needles, and several forks of Salt Creek. It has been re-evaluated to scenic quality A, both on its own merits and because of its interrelationship with the scenic resources of Canyonlands NP. The proposed ACEC is noted for its rugged terrain. The eastern portion of the proposed ACEC is composed of high buttes, domes, and spires of buff sandstone. These formations are the southern extension of the Needles District of the NP. In the southern part of the proposed ACEC, flat areas drop abruptly into the heads of the various forks of Salt Creek. Gray, cream, coral and red sandstones band the walls of these canyons.

The proposed Needles Wilderness in Canyonlands NP forms the area's northern and eastern boundaries. Recreation use in this area is not expected to have any effect on its scenic quality. The area is presently closed to oil and gas

leasing and open to mineral entry. No current land use threatens the scenic values of the area.

#### **BRIDGER JACK MESA**

The Nature Conservancy and the BLM identified Bridger Jack Mesa as having potential for designation as an ACEC, an ONA, or an RNA.

In the early 1970s, BLM identified the mesa top as having potential for ONA designation, but it was never designated. However, on some maps circulated by the agency, the ONA designation is shown. The mesa top (figure 1-1) was designated in 1980 as the Bridger Jack Wilderness Study Area (WSA). In 1983 The Nature Conservancy suggested alternative areas of 5,290 acres (the entire mesa top, figure 2-4) and 1,760 acres (the southern end of the mesa top, figure 2-3) for designation as either an RNA or an ONA.

The mesa top is believed to meet the criteria for special management designation because of its isolated, near-relict plant community. It is relevant because it offers the opportunity to study the recovery of pinyon-juniper woodland and sagebrush-grass communities from livestock grazing. These vegetation communities are important for livestock use and wildlife habitat throughout the Colorado Plateau.

The entire mesa top is public land, except for approximately 420 acres of state land. The cliffs surrounding the mesa top form a natural boundary. The partial area designation would include only the lands southwest of the state section. The partial area includes examples of the different vegetation types present on the mesa top; the larger area includes a greater percentage of pinyon-juniper woodland and more slickrock areas.

In this RMP/EIS, the area is considered for special management in four of the alternatives. In alternative B, the smaller proposal (1,760 acres) is analyzed as an RNA. The entire mesa top is analyzed as an ACEC in alternatives C and E and as an RNA in alternative D. It is overlapped by the North Abajo potential ACEC discussed below. The area also overlaps a preliminary potential ACEC identified in the MSA to protect hazardous watershed conditions in the

Indian Creek drainage but not carried forward into the EIS as a potential ACEC.

The State Director has decided to phase out the DNA and RNA designations in favor of the ACEC designation. The area would be managed for vegetation study, regardless of the type of designation applied.

#### BUTLER/COTTONWOOD/RECAPTURE CREEKS

The Butler, Cottonwood, and Recapture Creeks sensitive soils area (figure 3-9) was identified as a preliminary potential ACEC based on sensitive soils characteristics and on the natural hazard that could result from erosion. However, it was not identified as a potential ACEC in the RMP/EIS, because the special conditions developed for sensitive soils are believed sufficient to provide proper management; the intensive level of management associated with ACEC designation was not found to be needed.

The area contains about 41,050 acres of public land and several tracts of state and private lands. It follows the drainages of Butler Wash (east of Comb Ridge), Cottonwood Creek, and Recapture Creek and is used for grazing, minerals exploration, and agriculture.

Badland and gypsumland soils in this area are intermixed with stable soils. About 23 percent of the soils in the area would be classified as sensitive; they are natural sources of relatively high levels of sediments and salts. Salinity and sedimentation within the Colorado River drainage basin are of national concern because of the adverse effects on water users downstream. Disturbing these sensitive soils can increase erosion rates substantially and thereby increase the Colorado River system's salt and sediment load. Erosion rates can remain high for several years, until vegetation is re-established or the surface stabilized with rock fragments or other debris.

Although the area does have the potential for a natural hazard, sensitive soils could be protected through mitigation measures applied to specific projects. The need to recognize the potential hazard has been carried into the RMP/EIS, and the EIS has been used to develop

special conditions to protect sensitive soils. These would be applied to any land-use activity under alternatives C, D, and E. The special conditions are given in revised appendix A.

#### CAJON POND

In the draft EIS, BLM managers nominated the area around Cajon Pond (draft figure 2-6) as having potential for ACEC designation; the area was analyzed under draft alternative E. It was not identified in the MSA. However, the Cajon Pond proposed ACEC was not carried into the final EIS because the area surrounding Cajon Pond falls within the Hovenweep proposed ACEC under revised alternative E (revised figure 2-6). It also falls within the Hovenweep potential ACEC analyzed under alternative D.

In response to the draft, a nomination was received to expand the Cajon Pond proposed ACEC to 250 acres. This was not done because BLM did not find that the proposed level of management for Cajon Pond was required over a 250-acre tract.

Because the Hovenweep proposed ACEC would provide a higher level of protective management for surface resources than that anticipated in the draft Cajon Pond proposal, the 40-acre protective ACEC designation is no longer needed. Cajon Pond and its immediate vicinity (10 acres of public land) would benefit from the management proposed in the draft to protect waterfowl, so the area has been brought forward as the Cajon Pond special emphasis area of the Hovenweep proposed ACEC.

Cajon Pond, a constructed reservoir covering about 10 acres, is relevant because it provides habitat for migrating waterfowl in an area with very little surface water. The area is important because it is used by migrating waterfowl. A riparian area with cattails and sedges provides cover and food. Some waterfowl inhabit the area year-round. The boundaries of the special emphasis area have been drawn on section subdivision lines and include 10 acres (all public lands).

Part of Cajon Pond is currently excluded from grazing. A small portion of the shoreline is

fenced to provide a comparison plot of ungrazed riparian vegetation. This exclusion (about 1 acre) would be maintained. Consideration of additional grazing exclusions will be deferred until an AMP can be developed and the Cooperative Management Strategy [BLM and NPS, 1987] for the proposed Hovenweep ACEC implemented.

#### **CANYONLANDS BASIN/LOCKHART BASIN/INDIAN CREEK**

Canyonlands Basin was nominated by the public for ACEC designation for two reasons: to protect scenic values on public lands viewed from Canyonlands NP, Needles Overlook, or Canyonlands Overlook (in BLM's Grand Resource Area) and to protect cultural resources between Canyonlands NP, Hart Draw, and the Canyonlands Basin. Roughly, the Canyonlands Basin includes the area between the Colorado River on the north, the cliff of Hatch and Hart Points and the east side of Bridger Jack Mesa on the east, Manti-LaSal NF on the south, Dark Canyon on the west, and Canyonlands NP from Glen Canyon NRA east and north to the Colorado River). The Canyonlands Basin nomination includes Lockhart Basin.

In the MSA, part of the Canyonlands Basin was identified as the Lockhart Basin preliminary potential ACEC for scenic values under program 4333 and part as Lavender Mesa and Bridger Jack Mesa preliminary potential ACECs for vegetal resources under program 4322. The Canyonlands Basin nomination overlaps the public nomination for Beef Basin, discussed above.

BLM has considered this nomination for ACEC designation. The southern extension is the same as the Beef Basin nomination (discussed above); the 72,880-acre area was assessed as a potential ACEC for scenic and cultural resources under revised alternative D, and a 13,870-acre area as the Butler Wash proposed ACEC under revised alternative E.

The northern end overlaps Lockhart Basin, which was assessed in the draft as a 56,660-acre potential ACEC under alternatives C and D. The Lockhart Basin potential ACEC has been reevaluated and part of the area nominated is proposed for designation as the Indian Creek ACEC for scenic values (13,100 acres) under the preferred alternative and in the proposed RMP. The cen-

tral part overlaps the North Abajo area, which was assessed in the draft as a 65,450-acre potential ACEC to protect cultural resources under alternatives C and D; part of this is the proposed Shay Canyon ACEC (1,770 acres) analyzed under the preferred alternative. The Canyonlands Basin nomination also covers the proposed ACECs for Bridger Jack Mesa (5,290 acres, discussed above) and Lavender Mesa (640 acres, discussed below) assessed under revised alternative E. The remainder of the nominated area has not been carried forward as either a potential or a proposed ACEC. Hart Draw, within the nominated area, has been added to the Canyon Basins Special Recreation Management Area (SRMA) under the preferred alternative and would be managed for recreation opportunities (discussed below).

#### **Canyonlands Basin**

The Canyonlands Basin nomination was made partially on the basis of cultural values present. BLM agrees that the area contains significant cultural resources. However, outside of the Beef Basin area (discussed above) and the North Abajo area (discussed below), the cultural values present do not warrant ACEC consideration; the cultural properties present are not currently seen as threatened or at risk from resource development. While significant archaeological resources exist in the nominated area, the management guidance proposed for cultural resources (management common to all alternatives, revised chapter 2) and the special conditions developed for sites eligible for listing on the National Register would be sufficient to protect cultural values present; the intensive level of management associated with ACEC designation was not found to be needed.

The effects on cultural resources of designating Beef Basin as an ACEC were assessed under revised alternative D. The benefits to cultural resources that would accrue from the ACEC designation were found to be insignificant. In the preferred alternative, the area was not proposed as an ACEC to protect cultural values.

The effects on cultural resources of designating the North Abajo area as an ACEC were assessed under alternatives C and D. The potential

adverse impacts to other resource values from restrictive management were found to outweigh the benefit to cultural resources in all but Shay Canyon. In the preferred alternative, only Shay Canyon was proposed as an ACEC for cultural resources; this is the only part of the Canyonlands Basin nomination proposed for ACEC designation to protect cultural resource values.

Canyonlands Basin was also nominated to protect scenic values present. To be considered as an ACEC for scenic values, an area must be both scenic quality A and unique or very rare within its physiographic province. The only parts of the Canyonlands Basin nomination that meet these criteria are the Butler Wash area of the Beef Basin nomination (discussed above) and Lockhart Basin.

The Canyonlands Basin nomination also expressed concern for protecting values within Canyonlands NP. BLM recognizes that Congress has directed the NPS to manage surface uses within national parks to leave them unimpaired (16 USC 1). However, Congress did not direct the Secretary to leave public lands adjacent to NPS units undisturbed to preserve park values. BLM believes that Congress established the boundaries of Canyonlands NP with a sufficient internal buffer zone to separate recreation uses in the NP from activities on adjacent public lands. ACEC designation is not an appropriate means to provide a buffer around Canyonlands NP.

#### Lockhart Basin

In the draft, Lockhart Basin was identified as meeting the two criteria for identification as a candidate ACEC for scenic values and considered as a potential ACEC under alternatives C and D. The impact analysis showed that the benefit to scenic resources from ACEC designation would be offset by the potential for adverse impacts to other land uses. However, in response to this nomination, the area was re-examined. The area along lower Indian Creek Canyon (west of the area currently used for ORV recreation) is proposed for ACEC designation in revised alternative E and in the proposed RMP (revised figure 2-6).

Lockhart Basin (56,660 acres) was identified as a potential ACEC (figure 2-4) to protect scenic

values as viewed from the Needles and Canyonlands Overlooks on Hatch Point in the Grand Resource Area. The area was inventoried under the VRM system [Shiozawa and Larson, 1980] and found to be scenic quality A and unique or very rare within its physiographic province.

The scenic values of Lockhart Basin are relevant because special management attention is required to protect them and prevent irreparable damage. The area is important because it is viewed by regional and national tourists. The area is used for grazing and recreation and has been used for exploration for oil and gas and hard-rock minerals in the past. It is popular for recreational ORV use and receives some primitive hiking use, primarily along the edge of Canyonlands NP.

Within the potential ACEC, 56,660 acres are public lands, and 5,760 acres are state lands. The area is bounded on the north by the Colorado River, on the east by the cliffs of Hatch Point (the SJRA boundary), and on the west by Canyonlands NP. The southern boundary lies 1 to 2 miles north of Utah Highway 211. The potential ACEC overlies the Indian Creek WSA.

#### Indian Creek

Within the Lockhart Basin potential ACEC, the lower part of Indian Creek Canyon is proposed for ACEC designation under revised alternative E (revised figure 2-6). This area corresponds roughly with the Indian Creek WSA, but is slightly larger. Indian Creek Canyon is scenic quality A. The rock formations in this area are similar to those found in Canyonlands NP, which contains some of the most unique landforms in the world [Shiozawa and Larson, 1980]. The scenic values found in Indian Creek Canyon are relevant because special management attention is required to protect them and prevent irreparable damage. The scenic values are important to regional, national, and international tourists, who view the area from BLM's Needles Overlook, and to those who travel to Canyonlands NP and backpack into remote, natural areas adjacent to the park. Indian Creek Canyon is one such area.

The Indian Creek proposed ACEC is located east of and adjacent to Canyonlands NP and includes

the lower end of Indian Creek and Rustler Canyon. The proposed ACEC is noted for its incised, meandering canyons which wind through dark red mudstones, forming many rounded spires and "hoo-doos". These formations continue uninterrupted into the NP. The canyons hold perennial streams and a narrow strip of riparian vegetation. The eastern boundary is the proposed Maze Wilderness in Canyonlands NP. Recreation use in this area is not expected to have any effect on its scenic quality. No current land use threatens the area's scenic values.

The remainder of the Lockhart Basin potential ACEC was not carried into the preferred alternative because, although it is scenic quality A when viewed from the cliff top, it is less natural in appearance when viewed from the Lockhart Basin road. It has been the location of mining and oil exploration activities in past decades. The Hurrah Pass-Lockhart Basin road (which is a county road south of Lockhart Canyon) traverses the potential ACEC. A landing strip influences the area's visual quality just west of the Lockhart Basin road. Range improvements also make visual intrusions in the eastern part of Lockhart Basin.

#### **CEDAR MESA/GRAND GULCH**

Cedar Mesa was nominated by the public for ACEC designation to protect cultural, natural, recreation, wildlife, and visual resources within the Cedar Mesa Archaeologic District proposed under revised alternatives D and E. The entire Cedar Mesa/Grand Gulch Plateau nomination (404,710 acres) is assessed under revised alternative D as a potential ACEC to protect cultural, scenic, and natural values (revised figure 2-5); a slightly smaller area (323,760 acres) is proposed as the Cedar Mesa ACEC under the revised preferred alternative and proposed RMP (revised figure 2-6).

The nomination includes the Grand Gulch Primitive Area, which in turn contains the Grand Gulch Archaeologic District. The MSA discusses (under program 4331) the Grand Gulch potential ACEC (4,240 acres), which is analyzed in the draft under alternatives C and D and in this final EIS under alternative C. The MSA also discusses (under program 4333) the Grand Gulch

potential ACEC (49,130 acres), which is analyzed in the draft under alternative E. The Grand Gulch potential ACEC was not carried into the revised preferred alternative because it falls within the larger proposed Cedar Mesa ACEC.

The nomination also covers two other nominated areas. The Scenic Highway Corridor nomination crosses the Cedar Mesa nomination and includes a mile-wide strip along Utah Highways 95, 261, and 276 (formerly 263). The Cedar Mesa nomination also completely covers the Valley of the Gods nomination. Both of these areas are discussed below. Both are treated as potential ACECs in revised alternative D; the Scenic Highway Corridor in this area is proposed for ACEC designation under revised alternative E, and the Valley of the Gods nomination is treated as a special emphasis area within the proposed Cedar Mesa ACEC under revised alternative E.

Within the nominated area, Arch Canyon (discussed above) and Comb Ridge (discussed below) were also nominated for ACEC designation by the public, and Comb Wash (discussed below) was identified as a candidate ACEC in the MSA to protect sensitive soils. The Cedar Mesa nomination also overlaps preliminary potential ACECs identified in the MSA under program 4350 for wildlife values. These are discussed under Crucial Wildlife Habitat and Riparian Areas, below, but were not carried forward into the EIS as potential ACECs. The MSA (under program 4340) identified the Grand Gulch Primitive Area as a preliminary potential ACEC on the basis of air-quality-related values.

Also within the Cedar Mesa nomination are areas identified in the MSA under program 4333 as having potential for ONA designation. These potential ONAs (discussed below) are Fish and Owl Canyons, Grand Gulch (which again includes the primitive area), Johns Canyon, Lime Canyon, Mule Canyon, Road Canyon, and Slickhorn Canyon, which are all assessed for ONA potential under alternatives C and D (figure 2-4 and revised figure 2-5). Arch Canyon was also identified as having ONA potential and is assessed under revised alternative D (revised figure 2-5), as discussed above.

## Grand Gulch

The Grand Gulch Primitive Area (37,810 acres; figure 2-2) falls within the Grand Gulch Plateau SRMA (figure 3-17) and coincides with the Grand Gulch Instant Study Area (ISA) (figure 1-1). The primitive area is adjacent to the San Juan proposed wilderness in Glen Canyon NRA to the south. It contains the Grand Gulch Archaeologic District (figure 3-15). The archaeologic district (4,240 acres) was discussed in the MSA as a candidate ACEC under program 4331; it was analyzed as a potential ACEC in the draft under alternatives C and D and in this final EIS under alternative C. The MSA also discusses (under program 4333) the Grand Gulch potential ACEC (49,130 acres), which is analyzed in the draft under alternative E but was absorbed into the larger Cedar Mesa proposal under the revised preferred alternative in this final EIS.

The MSA (under program 4340) also identified the Grand Gulch Primitive Area as a preliminary potential ACEC on the basis of air-quality-related values. These values are important to maintaining visibility and pristine air quality within the primitive area. The primitive area is not threatened by development. The area is segregated from mineral and agricultural entry and closed to leasing; it is not used for grazing. The preliminary potential ACEC to protect air quality was not carried forward into the RMP/EIS because management prescriptions identified under alternatives C, D and E (as revised) would serve to protect these values by limiting surface disturbance.

Under alternative A, it was assumed that current management of the primitive area and the Grand Gulch Plateau SRMA would continue, but no special management would be imposed on the remainder of Cedar Mesa. Under alternative B, no special management designations were proposed, and the primitive area designation would be lifted.

Under alternative C, part of the primitive area (4,240 acres) is assessed as the Grand Gulch potential ACEC (figure 2-4). The potential ACEC is the same as the existing Grand Gulch Archaeologic District (figure 3-15), which is listed on the National Register. Grand Gulch Archaeologic

District has potential for ACEC management to recognize and protect the archaeological resources.

Cultural resources in this area are regionally and nationally important because of the Pueblo cliff dwellings. Protection of the cultural resources found here is relevant because they are irreplaceable and extremely vulnerable. Preservation of Basketmaker and Pueblo sites is excellent. The area is used heavily for recreation.

The walls of the Grand Gulch canyon form natural boundaries for the archaeologic district, which extends from Collins Canyon north to Kane Canyon, from canyon rim to canyon rim. It also includes the lower 3 miles of Bullet Canyon. The area is all public land; it has been withdrawn from mineral and agricultural entry and closed to leasing.

The potential Grand Gulch ACEC has been carried into revised alternatives D and E as part of the Cedar Mesa potential ACEC, discussed below.

Alternative C also identifies a potential ONA (69,500 acres) for the Grand Gulch Primitive Area and adjoining rim areas; a possible addition on the west side of the area (about 26,000 acres) was identified in the MSA but not analyzed in the RMP/EIS because the natural values present were not believed to be of the same quality as those found within the ISA complex. Two other potential ONAs are contiguous: Slickhorn (25,800 acres) and Johns Canyon (17,500 acres). (These potential ONAs are discussed below in this section.) The combined area of the three potential ONAs in the vicinity of Grand Gulch, analyzed under alternative C, totals 111,400 acres.

Through the analysis in the RMP/EIS, no benefit was determined from designating the area as an ONA. Recreation would be managed under the Grand Gulch Plateau SRMA. Under the revised preferred alternative, surface use would be managed using the special conditions developed for the recreation opportunity spectrum (ROS) classes and the Cedar Mesa proposed ACEC (revised appendix A).

In the draft RMP/EIS, under alternative D, the Grand Gulch Archaeologic District was considered as a potential ACEC, and the area around Grand Gulch was considered as an ONA, the same as under alternative C. Under revised alternative D, Grand Gulch falls within the area assessed as the potential Cedar Mesa ACEC, discussed below. The potential ONA remains part of revised alternative D.

In the draft RMP/EIS, under alternative E, the primitive area (37,810 acres) and an adjacent area around Slickhorn Canyon were proposed for ACEC designation (49,130 acres; draft figure 2-6). The proposal was based on the natural and scenic values that led to designation of Grand Gulch as a primitive area and contribute to its popularity for primitive recreation. The draft proposal fell within the Grand Gulch ISA Complex, in the Grand Gulch ISA and the Slickhorn Canyon WSA. Under revised alternative E, Grand Gulch and the remainder of the draft proposal fall within the area proposed as the Cedar Mesa ACEC, discussed below.

#### Cedar Mesa

Under alternatives A, B and C, Cedar Mesa is not considered for special management designation in the draft or final RMP/EIS except for the Grand Gulch area, discussed above, and the areas considered for ONA designation under alternative C, discussed below, this section.

Under revised alternative D, the entire Cedar Mesa nomination is assessed as the Cedar Mesa potential ACEC (404,710 acres). In 1980, BLM issued a draft management plan for Grand Gulch Plateau for public review and comment (draft page 3-77). This activity plan would have guided recreation management and cultural resource protection on the Grand Gulch Plateau. The consensus of comments was that no activity plan should be prepared prior to completion of this RMP (see revisions to draft, appendix AA). The area proposed as the Grand Gulch Plateau Archaeologic District under revised alternative D is essentially the same area considered in the 1980 draft. Because special management for this area was previously presented to the public in the draft Grand Gulch plan, the entire Grand Gulch Plateau has been assessed as the Cedar

Mesa potential ACEC under revised alternative D. The ACEC would be managed to protect cultural resources, scenic values, and natural values associated with primitive recreation.

Under revised alternative E, a smaller portion of the Cedar Mesa nomination (323,760 acres) is proposed for ACEC designation. The revised proposal extends from the west side of Grand Gulch on the west to Comb Wash (west of Comb Ridge) on the east, and from the Manti-LaSal NF on the north to U.S. Highway 163 on the south.

In part of the area assessed under revised alternative D, either no benefit was seen from special management, or the benefits of special management were not believed to outweigh the potential for adverse impacts to other resource uses. Accordingly, these areas were not included in the proposed ACEC assessed under revised alternative E. The areas that were nominated but not considered as part of the proposed ACEC are the area between Utah Highway 276 (formerly 263) and the Grand Gulch Primitive Area; the area north of the primitive area, south of Utah Highway 95, and west of Mormon Flat at the head of Grand Gulch; and the area along the eastern side of the nomination between Comb Wash and Butler Wash. (This area is covered by a separate nomination and discussed under Comb Ridge, below.)

The Grand Gulch Primitive Area forms the western edge of the proposed ACEC. It is relevant because it provides comparatively rare primitive recreation opportunities in a setting of significant natural and cultural values. The primitive area has an extremely high visitation rate from both private and commercial groups and is regionally and nationally important for primitive recreation opportunities.

The primitive area is entirely public lands or reacquired state lands. The canyon rims provide a natural boundary. The area has been withdrawn from mineral and agricultural entry and closed to leasing. Grazing has been excluded from 11,200 acres (the bottom of the gulch from Kane Gulch to the southern end of the primitive area); most of the rest of the canyon has not been grazed because of the rugged topography.



Other areas within the proposed Cedar Mesa ACEC contribute comparable natural and scenic values and provide primitive recreation opportunities similar to those in Grand Gulch. The ROS inventory identified a primitive (P)-class area (11,320 acres) in Slickhorn Canyon immediately east of the primitive area, including part of Polly's Mesa. The adjacent P-class area contains 2,240 acres of inheld state land. This area falls within the Grand Gulch ISA Complex and contributes to the relevant and important natural values of the primitive area.

Important P-class areas were also identified in Fish and Owl Creek Canyons (in the Fish Creek Canyon WSA), Road Canyon (in the Road Canyon WSA), and Lime Canyon (in the Lime Canyon WSA) on the east half of Cedar Mesa. All of these P-class areas are important because they provide primitive recreation opportunities that are in high demand by national and international tourists. They are relevant because P-class recreation opportunities are regionally and nationally scarce, although they are concentrated locally.

The ROS inventory also identified a P-class area immediately west of the primitive area. This area, about 5,000 acres, covers a portion of Steer Gulch and Grand Flat. Although it was considered as part of the Cedar Mesa potential ACEC under revised alternative D, it was not carried forward into the proposed ACEC in the EIS because the natural values were not believed to be of the same quality as those found within the primitive area. This area is not within the Grand Gulch ISA Complex identified through the wilderness inventory.

Along either side of Utah Highway 261, the lobes of Cedar Mesa between the many canyon systems are also used for backcountry recreation opportunities. Much of this area is not roaded and provides semiprimitive recreation opportunities. Areas along roads and trails are used for camping, hunting, and wood collecting.

The proposed Cedar Mesa ACEC also contains appreciable archaeological values. Part of the primitive area (4,240 acres) is listed on the National Register as an archaeologic district (figure 3-15). Significant sites also occur in other locations throughout Cedar Mesa, particu-

larly in the many canyon systems, which contain structural ruins and important diagnostic sites. Cultural resources in this area are regionally and nationally important because of the relatively pristine condition of structures and artifacts. Protection of the cultural resources found here is relevant because they are irreplaceable and extremely vulnerable. Much of Cedar Mesa, although relatively inaccessible, has been subject to unauthorized collection of artifacts (pot hunting) for commercial sale.

The proposed Cedar Mesa ACEC covers the Valley of the Gods area nominated to protect scenery as viewed from U.S. Highway 163 (discussed below). BLM agrees that protection of this scenery is important. Because the area is completely covered by the Cedar Mesa proposal, and because means to protect the scenery would be similar to those to protect the P-class areas within the proposed Cedar Mesa ACEC, the Valley of the Gods area would be managed as a special emphasis area (38,360 acres).

The Cedar Mesa nomination was also based on wildlife and natural resources. Cedar Mesa provides habitat for deer and bighorn sheep, but the only crucial habitat area is a small area of deer winter range on Harmony Flat on the northwest edge of Cedar Mesa. BLM did not find that either wildlife habitat or natural values (other than discussed above) require special attention under ACEC management. The crucial deer habitat was identified as a candidate ACEC in the MSA and is discussed under Crucial Wildlife Habitat, below.

### Fish and Owl Canyons

Within the Cedar Mesa nomination lie Fish and Owl Canyons. The area around Fish and Owl Canyons was identified in the MSA as a potential ONA because of its natural and scenic values, which led to the area's designation as Fish Creek WSA. In this RMP/EIS, the area is analyzed as a potential ONA under alternatives C and D. The area provides primitive recreation values in a relatively natural setting. The potential ONA, the heart of the Fish Creek WSA, is shown in figure 2-4.

Through the analysis in the RMP/EIS, no benefit was determined from designating the area as an ONA. Recreation would be managed under the Grand Gulch Plateau SRMA. Under the revised preferred alternative, surface use would be managed using the special conditions developed for the ROS classes and the Cedar Mesa proposed ACEC (revised appendix A).

The potential ONA contains about 40,300 acres of public lands and all or part of six state sections (about 3,200 acres). The northeastern boundary of the ONA is the north rim of Fish Creek Canyon; the southwestern boundary is the Hole-in-the-Rock Trail or the south rim of Owl Canyon; and the extreme western boundary is Utah Highway 261.

The potential ONA overlaps a preliminary potential ACEC identified in the MSA under program 4350. The preliminary potential ACEC is discussed under Riparian Areas below, but was not carried forward into the EIS as a potential ACEC.

#### Johns Canyon

Within the Cedar Mesa nomination lies Johns Canyon. The area around Johns Canyon (figure 2-4) was identified in the MSA as a potential ONA because of its natural and scenic values, which led to its designation as part of the Slickhorn Canyon WSA, included in the Grand Gulch ISA Complex. In this RMP/EIS, the area is analyzed as a potential ONA under alternatives C and D. The area provides primitive recreation values in a relatively natural setting.

Through the analysis in the RMP/EIS, no benefit was determined from designating the area as an ONA. Recreation would be managed under the Grand Gulch Plateau SRMA. Under the revised preferred alternative, surface use would be managed using the special conditions developed for the ROS classes and the Cedar Mesa proposed ACEC (revised appendix A).

The potential ONA contains about 17,500 acres of public lands and all or part of three state sections (about 1,300 acres). The ONA adjoins the Slickhorn Canyon potential ONA on the west and Glen Canyon NRA on the south; the canyon rims form the eastern boundary.

#### Lime Canyon

Within the Cedar Mesa nomination lies Lime Canyon. The area around Lime Canyon was identified in the MSA as a potential ONA because of its natural and scenic values, which led to its designation as part of the Road Canyon WSA. In this RMP/EIS, the area is analyzed as a potential ONA under alternatives C and D. The area provides primitive recreation values in a relatively natural setting. The potential ONA consists of the southern canyon system of the Road Canyon WSA (figure 2-4).

Through the analysis in the RMP/EIS, no benefit was determined from designating the area as an ONA. Recreation would be managed under the Grand Gulch Plateau SRMA. Under the revised preferred alternative, surface use would be managed using the special conditions developed for the ROS classes and the Cedar Mesa proposed ACEC (revised appendix A).

The potential ONA contains about 25,300 acres of public lands and all or part of four state sections (about 2,250 acres). The northern boundary is the road between Lime Canyon and Road Canyon; the eastern boundary is the slope into Comb Wash; the southern boundary is the cliff line above Valley of the Gods; and the western boundary is Utah Highway 261.

#### Mule Canyon

Within the Cedar Mesa nomination lies Mule Canyon. Mule Canyon was identified in the MSA as a potential ONA (figure 2-4) because of natural and scenic values that led to its designation as part of the Mule Canyon WSA. In this RMP/EIS, the area is analyzed as a potential ONA under alternatives C and D. The area provides primitive recreation values in a relatively natural setting.

Through the analysis in the RMP/EIS, no benefit was determined from designating the area as an ONA. Recreation would be managed under the Grand Gulch Plateau SRMA. Under the revised preferred alternative, surface use would be managed using the special conditions developed for the ROS classes and the Cedar Mesa proposed ACEC (revised appendix A).

The potential ONA contains about 6,000 acres, all public lands. It is bounded by the rim of Mule Canyon and the Manti-LaSal NF.

#### Road Canyon

Within the Cedar Mesa nomination lies Road Canyon. The area around Road Canyon was identified in the MSA as a potential ONA (figure 2-4) because of natural and scenic values that led to its designation as part of the Road Canyon WSA. In this RMP/EIS, the area is analyzed as a potential ONA under alternatives C and D. The area provides primitive recreation values in a relatively natural setting. The potential ONA consists of the northern canyon system of the Road Canyon WSA.

Through the analysis in the RMP/EIS, no benefit was determined from designating the area as an ONA. Recreation would be managed under the Grand Gulch Plateau SRMA. Under the revised preferred alternative, surface use would be managed using the special conditions developed for the ROS classes and the Cedar Mesa proposed ACEC (revised appendix A).

The potential ONA contains about 24,500 acres of public lands and two state sections (about 1,280 acres). The northern boundary of the ONA is the Hole-in-the-Rock Trail; the eastern boundary is the lower end of Road Canyon; the southern boundary is the road between Lime Canyon and Road Canyon; and the western boundary follows a drainage divide.

The potential ONA overlaps a preliminary potential ACEC identified in the MSA under program 4350. The preliminary potential ACEC is discussed under Riparian Areas below, but was not carried forward into the EIS as a potential ACEC.

#### Slickhorn Canyon

Within the Cedar Mesa nomination lies Slickhorn Canyon. The area around Slickhorn Canyon (figure 2-4) was identified in the MSA as a potential ONA because of its natural and scenic values, which led to its designation as the Slickhorn Canyon WSA (part of the Grand Gulch ISA Complex). In this RMP/EIS, the area is analyzed as a potential ONA under alternatives C

and D. The area provides primitive recreation values in a relatively natural setting.

Through the analysis in the RMP/EIS, no benefit was determined from designating the area as an ONA. Recreation would be managed under the Grand Gulch Plateau SRMA. Under the revised preferred alternative, surface use would be managed using the special conditions developed for the ROS classes and the Cedar Mesa proposed ACEC (revised appendix A).

The potential ONA contains about 25,800 acres of public lands and all or part of six state sections (about 3,000 acres); it adjoins the Grand Gulch potential ONA on the north and west and the Johns Canyon potential ONA on the east. The southern boundary is Glen Canyon NRA.

#### COMB RIDGE

Comb Ridge was nominated by the public for ACEC designation to protect visual and cultural resources along Comb Ridge between Manti-LaSal NF and U.S. Highway 163. BLM has considered this nomination for ACEC designation, but does not find that the area meets ACEC criteria.

By itself, the Comb Ridge area was not found to warrant consideration as an ACEC for cultural values, but BLM has considered it as part of the potential Cedar Mesa ACEC analyzed under revised alternative D (discussed above). It falls within the Cedar Mesa Archaeologic District, proposed for nomination to the National Register under the revised preferred alternative. In an archaeologic district, cultural resource sites would be protected from other surface uses (draft pages 2-6 and A-27).

Comb Ridge contains many significant cultural resources but does not differ significantly from the remainder of SJRA. The majority of sites in Comb Ridge are dry caves that have been severely vandalized in the past. The management guidance proposed for cultural resources (management common to all alternatives, revised chapter 2) and the special conditions developed for sites eligible for listing on the National Register would be sufficient to protect cultural values present; the intensive level of management associated with ACEC designation was not found to be needed.

An area must be both scenic quality A and unique or very rare within its physiographic province for identification as a candidate potential ACEC for scenic values. Comb Ridge meets the first criterion, but not the second, as it is similar to the Cockscomb; therefore, it has not been considered as a potential ACEC for scenic values.

A small part of the east side of the Comb Ridge nomination has scenic quality A because of the deeply incised drainages that run perpendicular to the ridge. However, the west escarpment of the ridge has been evaluated as having class-B scenery. Class-B scenery is that which contains some outstanding features and some fairly common to the physiographic region. The west side of Comb Ridge scored high in the rating factors of landform and uniqueness; low in presence of water and diversity of vegetation; and moderate in color and intrusions. All of these factors, when scored, combined to produce class-B scenery. The fact that Comb Ridge is a relatively unique geologic feature is not sufficient to produce a class-A scenery rating; the rating must come from a combination of all six rating factors.

#### **COMB WASH**

An area of sensitive soils along Comb Wash (6,240 acres; figure 3-9) was identified as a candidate ACEC in the MSA. The sensitive soils area presents a potential natural hazard that could result from erosion. However, it was not identified as a potential ACEC in the RMP/EIS because the special conditions developed for sensitive soils are believed sufficient to provide proper management; the intensive level of management associated with ACEC designation was not found to be needed.

The area around Comb Wash contains about 1,000 acres of state lands in addition to the 6,240 acres of public lands. It includes the eastern edge of the Fish Creek Canyon and Road Canyon WSAs and is used for grazing and mineral exploration.

Badland and gypsumland soils in this area are intermixed with stable soils. About 23 percent of the soils in the area would be classified as sensitive; they are natural sources of relative-

ly high levels of sediments and salts. Salinity and sedimentation within the Colorado River drainage basin are of national concern because of the adverse effects on water users downstream. Disturbing these sensitive soils can increase erosion rates substantially and thereby increase the Colorado River system's salt and sediment load. Erosion rates can remain high for several years, until vegetation is re-established or the surface stabilized with rock fragments or other debris.

Although the area does have the potential for a natural hazard, sensitive soils could be protected through mitigation measures applied to specific projects. The need to recognize the potential hazard has been carried into the RMP/EIS; the EIS has been used to develop special conditions to protect sensitive soils, and these would be applied to any land-use activity under alternatives C, D, and E. The special conditions are given in revised appendix A.

#### **CRUCIAL WILDLIFE HABITAT/MESA TOPS**

The crucial wildlife habitat areas for key big game species in SJRA were identified in the MSA as candidate ACECs. The three species involved are desert bighorn sheep, pronghorn antelope, and mule deer. The desert bighorn sheep crucial habitat area was also identified by the public as needing special management to protect wildlife values, as were the five identified mesa tops within this area (figure 3-11). However, the crucial habitat areas were not identified as a potential ACEC under any alternative in the RMP/EIS because the special conditions developed under alternatives C and E to seasonally protect the habitat areas are believed sufficient to provide proper management; the intensive level of management associated with ACEC designation was not found to be needed.

#### **Desert Bighorn Sheep Crucial Habitat**

The crucial habitat area for desert bighorn sheep was identified in the MSA as a preliminary potential ACEC based on the need to protect the animals during rutting and lambing seasons. The area contains about 329,750 acres of public land, split into two areas. The northern portion includes the Dark Canyon Primitive Area and

contains about 63,000 acres; the southern portion about 266,750 acres (figure 3-11).

The habitat area is relevant because it is used by the largest population of desert bighorn sheep in Utah. Bighorn sheep are nationally recognized as an important wildlife species. The animals could be disturbed by development activities or grazing pressure.

The crucial habitat area extends into Glen Canyon NRA to the west and Canyonlands NP to the northwest. Within the area on public lands are several tracts of state land, totaling about 26,000 acres.

The area is not carried forward in the RMP/EIS as a potential ACEC. Although it does provide crucial habitat used by the bighorn, existing management practices could be used to protect the habitat through mitigation measures applied to specific projects. However, the need to recognize the wildlife values has been carried into the RMP/EIS. The entire habitat area is included within the White Canyon/Red Canyon Habitat Management Plan (HMP), which will provide for specific management actions to protect and enhance the habitat at the activity-plan level. Under alternative A, seasonal stipulations would be applied to oil and gas lease activities, while other parts of the habitat area would be closed to lease or have no-surface-occupancy stipulations applied.

Seasonal special conditions were developed in the EIS to protect the crucial habitat areas; these would be applied to any land-use activity under alternatives C and E. Additional special conditions would be applied to grazing uses on five mesa tops within the crucial habitat area and would exclude parts of the crucial habitat area from land treatments under alternatives C and E. Under alternative D, most of the crucial habitat area would fall within a natural succession area; most activities would be managed in such a way that the habitat would be protected from human activities. The special conditions are given in revised appendix A.

The crucial habitat areas overlap areas proposed for special designations under other programs. The habitat area near the Dark Canyon Primitive

Area overlaps the Dark Canyon proposed ACEC, analyzed under alternative E, and the Dark Canyon ONA, analyzed in alternatives C and D. This habitat area also overlaps the Dark Canyon and Fable Valley drainages identified in the MSA as a preliminary potential ACEC, discussed under Riparian Areas, below. The southern habitat area overlaps the White Canyon, Scenic Highway Corridor, and Moki-Red Canyon potential ACECs analyzed in revised alternative D, and the proposed Scenic Highway Corridor ACEC analyzed in revised alternative E. The southern area overlaps the Moki Canyon drainage identified in the MSA as a preliminary potential ACEC, discussed under Riparian Areas, below.

#### Pronghorn Antelope

The Dry Valley habitat area for pronghorn antelope was identified in the MSA as a preliminary potential ACEC based on the need to protect the animals, particularly during the fawning season. The area contains about 34,000 acres of public land within SJRA. Approximately 12,960 acres of public lands within this area are considered crucial fawning habitat (figure 3-11).

The habitat area is relevant because it is used by the only population of antelope in SJRA. Pronghorn antelope are nationally recognized as an important wildlife species. The animals could be disturbed by development activities or grazing pressure.

Within the area on public lands are tracts of state land totaling about 2,560 acres and private land totaling about 960 acres; a large block of nonfederal land is adjacent. The habitat area extends into Grand Resource Area to the north.

The area was not proposed in the RMP/EIS as a potential ACEC because existing management practices could be used to protect the habitat through mitigation measures applied to specific projects. However, the need to recognize the wildlife values on the crucial habitat area has been carried into the RMP/EIS. The entire habitat area is included within the Hatch Point HMP, which will provide for specific management actions to protect and enhance the habitat at the activity-plan level. Seasonal special

conditions to protect the crucial habitat area would be applied to any land-use activity under alternatives C and E. The special conditions are given in revised appendix A.

### Mule Deer

The crucial winter range for mule deer was identified in the MSA as a preliminary potential ACEC based on the need to protect the animals during the winter. The area contains about 197,550 acres of public land in seven areas (figure 3-12).

The habitat areas are relevant because they are used by concentrated populations of deer during the winter. Mule deer are nationally recognized as an important wildlife species. The animals could be disturbed by development activities or grazing competition on winter range.

Some of the crucial habitat areas are near Manti-LaSal NF, Canyonlands NP, Natural Bridges NM, or the Navajo reservation. Adjacent public lands are used for mineral exploration and development, particularly for oil and gas, and for grazing and recreation. Within the area on public lands are several tracts of state land totaling about 19,000 acres and private land totaling about 8,000 acres; large blocks of nonfederal land are adjacent to all three of the areas.

The crucial habitat areas were not proposed in the RMP/EIS as a potential ACEC because existing management practices could be used to protect the crucial habitat through mitigation measures applied to specific projects. However, the need to recognize the wildlife values has been carried into the RMP/EIS. The Beef Basin and Cathedral Butte crucial habitat areas are included within the Beef Basin HMP, and the Hatch Point crucial habitat area within the Hatch Point HMP. The HMPs will provide for specific management actions to protect and enhance the habitat at the activity-plan level.

Under alternative A, stipulations to protect winter range would be applied to oil and gas lease activities on 216,190 acres. Seasonal special conditions to protect the crucial habitat areas would be applied to any land-use

activity under alternatives C and E. Additional special conditions would exclude land treatments on 9,800 acres of sagebrush within the crucial habitat area under alternatives C and E. Under alternative D, some of the crucial habitat area would fall within a natural succession area. The special conditions are given in revised appendix A.

Some of the crucial habitat areas fall within areas proposed for special designations under other programs. The habitat area near the Dark Canyon Primitive Area overlaps the Dark Canyon ONA, analyzed in alternatives C and D, and is very near the Dark Canyon potential ACEC analyzed under alternative E. The habitat area near Salt Creek is adjacent to Bridger Jack Mesa, analyzed as a potential ACEC in alternative C and revised alternative E, and as an RNA in alternatives B and D. The Montezuma-Alkali Point habitat area overlaps the Alkali Ridge potential ACEC analyzed in alternatives C, D, and E. This area was also identified in the MSA as a preliminary potential ACEC to protect sensitive soils or hazardous floodplains, discussed under Alkali Creek, above. Four of the habitat areas overlap riparian/aquatic habitat areas, identified in the MSA as preliminary potential ACECs, discussed under Riparian Areas, below.

### **DARK CANYON/MIDDLE POINT**

The Dark Canyon Primitive Area (62,040 acres, figure 2-2) coincides with the existing Dark Canyon SRMA and the Dark Canyon ISA. The MSA identified the primitive area for potential designation as an ACEC (revised figure 2-6) or ONA (figure 2-4) under program 4333 because of natural and scenic values that led to its designation as a primitive area and contribute to its popularity for primitive recreation. The public also nominated Dark Canyon and Middle Point for ACEC designation for scenic, natural, and cultural values.

The Dark Canyon Primitive Area is proposed for ACEC designation under the preferred alternative to protect natural values associated with primitive recreation. In this RMP/EIS, the primitive area is also analyzed as a potential ONA under alternatives C and D. The proposed ACEC in-

cludes only the primitive area (62,040 acres), and the potential ONA includes the adjacent Middle Point WSA (68,100 acres total).

The Dark Canyon Primitive Area is relevant because it provides comparatively rare primitive recreation values in a relatively pristine setting. The values are thought to be of very high quality. The area has experienced increasing visitation from both private and commercial groups and is regionally and nationally important.

The primitive area is entirely public lands or reacquired state lands. It consists of two tracts; the canyon systems connect with the Colorado River Canyon within Glen Canyon NRA. It includes Dark Canyon, Gypsum Canyon, Fable Valley, and several smaller canyons. The canyon rims form a natural boundary around most of the primitive area. The area has been withdrawn from mineral and agricultural entry and closed to leasing. Most of it has not been grazed because of the rugged topography. It is adjacent to the Dark Canyon Wilderness Area in Manti-La Sal NF to the east, the Needles proposed wilderness in Canyonlands NP to the north, and the Dark Canyon proposed wilderness in Glen Canyon NRA to the west.

The public nominated Dark Canyon and Middle Point for ACEC designation based on scenic values. An area must be both scenic quality A and unique or very rare within its physiographic province for identification as a candidate potential ACEC for scenic values. Neither Dark Canyon nor Middle Point meets these criteria. Dark Canyon has been evaluated as scenic quality A but does not meet the second criterion because it is similar to other A-quality canyons in the area. Middle Point has been evaluated as having scenic quality C, so it does not meet the first criterion.

However, Dark Canyon and the western tip of Middle Point have been inventoried as being in the ROS P or SPNM class (figure 3-17). Under the preferred alternative, ROS P-class areas would be managed as VRM class I (revised appendix A), which would afford visual resources within the area a high level of protection.

The nomination also references cultural values in Dark Canyon. While significant archaeological resources exist in this area, the management guidance proposed for cultural resources (management common to all alternatives, revised chapter 2) and the special conditions developed for sites eligible for listing on the National Register would be sufficient to protect cultural values present; the intensive level of management associated with ACEC designation was not found to be needed.

The MSA (under program 4340) identified the Dark Canyon Primitive Area as a preliminary potential ACEC on the basis of air-quality-related values. These values are important to maintaining visibility and pristine air quality within the primitive area. The primitive area is not threatened by development. The area is segregated from mineral and agricultural entry and closed to leasing; it is not used for grazing. The preliminary potential ACEC to protect air quality was not carried forward into the RMP/EIS because management prescriptions identified under alternatives C, D and E (as revised) would serve to protect these values by limiting surface disturbance.

Dark Canyon and the adjacent Middle Point were analyzed as a potential ONA under alternatives C and D. Through the analysis in the RMP/EIS, no benefit was determined from designating the area as an ONA. Recreation would be managed under the Dark Canyon SRMA under all alternatives except E; under revised alternative E, the area would be part of the Canyon Basins SRMA. Under the revised preferred alternative, surface use would be managed using the special conditions developed for the ROS classes and the Dark Canyon proposed ACEC (revised appendix A).

The potential ACEC and ONA both overlap preliminary potential ACECs identified in the MSA under program 4350 for wildlife values, discussed under Crucial Habitat (above) and Riparian Areas (below). The preliminary potential ACECs are not analyzed in the EIS as potential ACECs.

#### **GLEN CANYON NRA**

The public nominated the Glen Canyon NRA for designation to protect scenic, natural, cultur-

al, and wildlife values within the NRA from BLM-administered resource-use activities. BLM administers grazing and minerals activities (where allowed) within the NRA. However, NPS has the authority to establish special conditions for surface use of NRA lands, which it has done through its General Management Plan [NPS, 1979]. Because BLM has no authority to establish, enforce, or maintain special use conditions on NRA land, this nomination has not been considered or analyzed in the RMP/EIS.

#### **HARTS DRAW**

The public nominated Harts Draw for ACEC designation in two ways. Some commentators included it within the Canyonlands Basin ACEC nomination, presumably for cultural values, and others specifically nominated it for ACEC designation to protect natural and recreation values.

Harts Draw is not believed to warrant ACEC designation to protect cultural values present; these values, in relation to the larger Canyonlands Basin nomination, are discussed above. While archaeological resources exist in this area, the management guidance proposed for cultural resources (management common to all alternatives, revised chapter 2) and the special conditions developed for sites eligible for listing on the National Register would be sufficient to protect cultural values present; the intensive level of management associated with ACEC designation was not found to be needed.

The ACEC nomination is based in part on natural values. Harts Draw is not believed to be especially unique or to present an ecologically significant area. It is a relatively narrow, steep-sided canyon extending about 8 miles southeast from the Indian Creek drainage. It separates Harts Point from Hatch Point (both in Grand Resource Area). A jeep trail extends about 3 miles up the draw, and the area is used for occasional ORV recreation and some back-country use. The area shows evidence of past mining activities and is used for livestock grazing.

While the area does provide some opportunities for recreation use, existing management practices could be used to protect natural values

through mitigation measures applied to specific projects. The intensive level of management associated with ACEC designation was not found to be needed.

The ACEC nomination is also based on recreation values. While an ACEC designation may be made to protect natural, scenic, or other resource values that would lead to recreation opportunities, the designation is not appropriate based on recreation values alone. An area must be both scenic quality A and unique or very rare within its physiographic province for identification as a candidate potential ACEC for scenic values. Harts Draw does not meet either criterion. However, the need to provide for recreation use has been incorporated into the RMP/EIS. After reviewing this nomination, BLM has enlarged the boundaries of the Canyon Basins SRMA in revised alternative E to include all of Harts Draw. This will provide the basis to develop site-specific management through activity-level plans.

#### **HOVENWEEP**

After the MSA was prepared, NPS nominated the area around the Square Tower unit of Hovenweep NM for ACEC designation. This unit is analyzed as a 2,000-acre potential ACEC in the draft and final EIS under alternative D and as the 1,500-acre Hovenweep proposed ACEC under revised alternative E.

Prior to publication of the draft EIS, NPS suggested that BLM designate an area surrounding the Square Tower unit of Hovenweep NM as an ACEC to protect cultural and scenic values. This is part of a larger NPS-nominated area (5,214 acres) in Utah and Colorado. The adjacent area in Colorado is included in the Anasazi Culture Multiple Use Area ACEC (156,000 acres) designated by BLM's Montrose District in 1985 [BLM, 1984b].

The draft EIS analyzed an area of 2,000 acres in the vicinity of the Square Tower ruin (revised figure 2-5). This area included the public lands surrounding the Square Tower unit and those extending north to the existing county road along the top of Cajon Mesa, which provides access into the NM. The area extends along a



section line east to the Colorado state line, and the public lands within it are separated into two tracts by a state section and private land. In the draft, the potential Hovenweep ACEC was not carried forward into the preferred alternative because the existing no-surface-occupancy stipulation on mineral leasing was believed sufficient to protect cultural and visual resources in the 880 acres adjacent to the NM. The level of management associated with an ACEC was not found to be needed to protect cultural resources in the remainder of the area assessed.

After publication of the draft, BLM and NPS continued discussions on how public land near the NM should be managed. BLM and NPS agree on the concept of cultural resource protection in the Hovenweep area, and both agencies have subscribed to a cooperative management effort to achieve this goal. In April 1987, BLM and NPS entered into an agreement, the Cooperative Management Strategy [BLM and NPS, 1987], regarding management of the Resource Protection Zone surrounding the NM. The area agreed upon is slightly different from that analyzed in the draft EIS under alternative D. The northern boundary is an old route of the county road instead of the present alignment, and the southern boundary of the zone angles northeast to the state line. The revised zone includes 1,500 acres of public land in two tracts in Utah. The management prescriptions in the revised proposal are those developed jointly by BLM and NPS (revised appendixes A and I).

The area adjacent to the NM is relevant because it contains cultural resources analogous to those within the NM, but which have not been reconstructed or stabilized. It is important because it is seen by tourists visiting the NM's Square Tower unit. Although other units managed by NPS (such as Canyonlands NP or Glen Canyon NRA) are large enough to contain internal buffer zones to separate recreation experiences from activities on adjacent public lands, the boundaries of the various units of Hovenweep were established to include only a few significant archaeological sites. Because the NM units are small and scattered, they may be highly influenced by activities on public lands outside the NM. The agreement between NPS and BLM will

serve to protect adjacent cultural resource sites related to those within the NM and which have a cumulative significance together with the Hovenweep sites.

Some private land and part of a state section fall within the nominated area. A total of 620 acres of state land and 620 acres of private land are within the resource protection zone drawn by the NPS.

The resource protection zone covers Cajon Pond. Cajon Pond was analyzed as a 40-acre proposed ACEC in draft alternative E. In revised alternative E, no need was found for this proposed ACEC because the proposed Hovenweep ACEC would limit resource-use activities within the larger protection zone. However, BLM believes that seasonal restrictions to protect waterfowl on the pond are still needed. Accordingly, Cajon Pond has been proposed as a special emphasis area within the larger Hovenweep ACEC. Because the boundary of the resource protection zone follows the road which crosses the dam at the pond and skirts one side of the pond, the boundary of the Hovenweep ACEC has been adjusted in this area to include a 10-acre tract centered on Cajon Pond; this is the special emphasis area. The area is discussed under Cajon Pond, above.

#### INDIAN CREEK

The Indian Creek drainage basin area was identified in the MSA under program 4340 as a candidate ACEC. The Indian Creek drainage basin presents a potential natural hazard that could result from erosion. However, it was not identified as a potential ACEC in the RMP/EIS because special management provisions were not found to be needed. The area contains about 25,000 acres of public land with scattered tracts of state and private land. It is shown in the MSA and extends generally along Indian and Cottonwood Creeks from Manti-LaSal NF north to the confluence of the two creeks. Most of the public land in the area is used for grazing and recreation. It is adjacent to the Manti-LaSal NF and to Newspaper Rock State Park.

Indian Creek drainage is important because it provides one of the few trout-stream habitats in the region. Significant downcutting in a por-

tion of the creek has already affected riparian and aquatic habitat areas. The downcutting is believed to be caused by increased runoff from agricultural lands. Other surface disturbance in the area has been caused by minerals exploration and development but is not extensive.

Significant downcutting within the floodplain presents a natural hazard that could be a significant source of sediment to the Colorado River drainage basin. Sedimentation within the Colorado River drainage basin is of national concern because of its adverse effects on water users downstream. Surface disturbance within the drainage basin can substantially increase erosion rates and thereby increase the Colorado River system's sediment load. Erosion rates could remain high for several years, until vegetation is re-established or the surface stabilized with rock fragments or other debris.

Although the area does have the potential for a natural hazard, provisions of executive orders and regulations would be sufficient to protect the floodplain through mitigation measures applied to specific projects. However, the need to recognize the potential hazard has been carried into the RMP/EIS. The EIS has been used to develop special conditions to protect floodplains, and these would be applied to any land-use activity. The floodplain special conditions would be applied under alternatives B, C, D, and E. The special conditions are given in revised appendix A.

The preliminary potential ACEC is next to the Bridger Jack Mesa proposed ACEC, discussed above. It also falls within the North Abajo potential ACEC and overlaps the Snay Canyon proposed ACEC, discussed below. It includes the portion of the Indian Creek riparian area identified as a special emphasis area within the Snay Canyon proposed ACEC.

#### **LAVENDER MESA**

BLM has identified Lavender Mesa (640 acres; figure 2-3) as having potential for ACEC or RNA designation. In the RMP/EIS, the area is analyzed as an RNA in alternatives B and D, and as an ACEC in alternative C and revised alternative E. It is overlapped by the North Abajo poten-

tial ACEC which was analyzed under alternatives C and D and is discussed below.

The mesa top is believed to meet the criteria for special management designation because it contains an isolated relict plant community. It is relevant because it offers the opportunity to study pinyon-juniper woodland and sagebrush-grass communities that have never been subject to livestock grazing. These vegetation communities are important for livestock use and wildlife habitat throughout the Colorado Plateau.

The entire mesa top is public land. The cliffs surrounding the mesa top form a natural boundary.

The State Director has decided to phase out the ONA and RNA designations in favor of the ACEC designation. The area would be managed for vegetation study, regardless of the type of designation applied.

#### **MOKI-RED CANYONS**

The area between Moki and Red Canyons was nominated by the public for ACEC designation to protect cultural resources adjacent to Glen Canyon NRA. It includes the Mancos Mesa WSA. The lower end of Moki Canyon was also among the drainages identified in the MSA under program 4350 as candidate ACECs for riparian values.

BLM agrees that the area contains significant cultural resources, including cliff dwellings and other archaeological sites. Cultural resources in this area are regionally and nationally important because of scientific uncertainties regarding the Anasazi culture. They are relevant because they are irreplaceable and vulnerable to damage through surface disturbance and vandalism. No surface use of the area now occurs, except for limited cattle grazing, although minerals exploration has occurred in the past. No significant damage to cultural resources in the nominated area is presently occurring from these uses.

The effects of designation of the potential Moki-Red Canyon ACEC were assessed under revised alternative D. The Moki-Red Canyon potential ACEC contains 71,020 acres of public land with scattered tracts of state land (revised figure

2-5). The benefits to cultural resources that would accrue from special management under the ACEC designation were found to be insignificant. Management of sites eligible for listing on the National Register would be covered by provisions of law; additional protection would be afforded under the special conditions developed under alternatives D and E (revised appendix A). In addition, all alternatives assessed established cultural resource management zones (table 3-9 as revised) to provide cultural resource management objectives. It is believed that these levels of management prescriptions would be sufficient on their own to protect cultural resources in the nominated area. The cultural properties present are not currently seen as threatened or at risk from resource development; therefore, the area is not proposed in the preferred alternative as an ACEC to protect cultural values.

The Moki-Red Canyon nomination also expressed concern with protecting values within Glen Canyon NRA. BLM recognizes that Congress has directed NPS to manage surface uses within the NRA to preserve recreation values (16 USC 1). However, Congress did not direct the Secretary to leave public lands adjacent to the NRA undisturbed to preserve park values. Congress established the boundaries of Glen Canyon NRA with a sufficient internal buffer zone to separate recreation uses in the NRA from activities on adjacent public lands. An ACEC designation is not an appropriate means to provide a buffer around Glen Canyon NRA.

#### **NOKAI DOME/MIKES CANYON**

The Nokai Dome area was nominated by the public for ACEC designation to protect natural values adjacent to Glen Canyon NRA. The nominated area, analyzed under revised alternative D, contains 90,850 acres of public land with scattered state sections throughout (revised figure 2-5). It includes Nokai Dome, Castle Creek, and Mikes Canyon. It is bounded by Glen Canyon NRA on the west and the south, the Clay Hills Crossing road on the east, and Utah Highway 276 (formerly 263) and the Hole-in-the-Rock Trail on the north. It is adjacent to the potential Cedar Mesa ACEC assessed under revised alternative D and the Scenic Highway Corridor potential

ACEC assessed under revised alternatives D and E. The area is not proposed as an ACEC under revised alternative E.

BLM agrees that the area contains some natural values and has assessed the nomination as a potential ACEC under revised alternative D. The area is remote and relatively inaccessible. The nomination includes the lower extension of the Clay Hills, which cross the southwestern portion of SJRA. Mikes Canyon and Castle Creek provide some recreation opportunities associated with Glen Canyon NRA. No other surface use of the area now occurs, except for cattle grazing. No significant damage to natural values in the nominated area is presently occurring. The benefits to natural values that would accrue from special management under the ACEC designation were found to be insignificant.

The ACEC nomination is based on natural values. The Nokai Dome area is not believed to be especially unique or ecologically significant. It is relatively similar to the Clay Hills, which extend for about 30 miles across SJRA. While the area does provide some opportunities for recreation use, existing management practices could be used to protect natural values present through mitigation measures applied to specific projects. The intensive level of management associated with ACEC designation was not found to be needed.

The Nokai Dome nomination also expressed concern with protecting values within Glen Canyon NRA. BLM recognizes that Congress has directed the NPS to manage surface uses within the NRA to preserve recreation values (16 USC 1). However, Congress did not direct the Secretary to leave public lands adjacent to the NRA undisturbed to preserve park values. Congress established the boundaries of Glen Canyon NRA with a sufficient internal buffer zone to separate recreation uses on the NRA from activities on adjacent public lands. An ACEC designation is not believed appropriate to provide a buffer around Glen Canyon NRA.

#### **NORTH ABAJO**

The North Abajo area (figure 2-4) was identified in the MSA under program 4331 as having poten-

tial for ACEC management to recognize and protect archaeological resources present. The area identified in the MSA contains 65,450 acres and is analyzed in the RMP/EIS under alternatives C and D. A partial area of 1,770 acres is analyzed under alternative E in the RMP/EIS as the proposed Shay Canyon ACEC (revised figure 2-6). The North Abajo candidate area falls entirely within the Canyonlands Basin nomination (discussed above).

The larger potential ACEC overlies both Bridger Jack Mesa and Lavender Mesa potential ACECs (discussed above). Both the larger and smaller potential ACECs overlap the Indian Creek riparian area (identified in the MSA under 4340 as a preliminary potential ACEC and under 4350 as part of the riparian areas).

Cultural resources in this area are regionally and nationally important because of the unique and sensitive rock art sites. The area represents the transition zone between the Anasazi culture to the south and the Fremont culture to the north; it also contains at least one archaeoastronomy site. The area is used for recreation, particularly adjacent to Canyonlands NP and Newspaper Rock State Park. Protecting the cultural resources found here is relevant because they are irreplaceable and extremely vulnerable.

Within the potential North Abajo ACEC, 65,450 acres are public lands, 7,120 acres are state lands, and 4,880 acres are privately owned. Canyonlands NP forms the western boundary, and the Manti-LaSal NF forms the southern boundary. Utan Highway 211 forms part of the northern boundary, and the cliffs of Harts Point (the boundary of the SJRA) form the northeast boundary. The impact analysis indicates that cultural resources would benefit from this type of designation; however, because these beneficial effects would be offset by restrictions on other potential surface uses, the smaller Shay Canyon area is analyzed for ACEC potential in alternative E.

The proposed Shay Canyon ACEC contains 1,770 acres of public land, 40 acres of state land and 200 acres of private land. It lies at the bottom of Shay Canyon and is believed to repre-

sent the highest density of quality archaeological sites.

The upper end of the Indian Creek drainage is believed to have significant value because it is one of the few trout fisheries in the region. Under the revised preferred alternative, it is identified as a special emphasis area within the Shay Canyon proposed ACEC.

#### RECAPTURE LAKE

The drainage basin for Recapture Lake at Recapture Dam was identified in the MSA under program 4340 as a candidate ACEC, based on its potential for use as a municipal watershed by Blanding or the San Juan Water Conservancy District. The area, shown in the MSA, contains about 7,000 acres of public land.

After the MSA was prepared, the San Juan Water Conservancy District informed BLM that no municipal watershed would be designated in the area; therefore, the area was not carried forward as a potential ACEC.

#### RIPARIAN AREAS

The riparian/aquatic habitat areas in SJRA were identified in the MSA under program 4350 as candidate ACECs, based on the need to protect these habitat zones from surface disturbance, in accordance with Executive Orders 11988 and 11990. The preliminary potential designation was not carried into the RMP/EIS because the intensive level of management associated with ACEC designation was not found to be needed.

The MSA identified an estimated area of 38,400 acres, based on a corridor 660 feet wide along 16 of the creeks shown in draft table 3-6 (all except Cottonwood Creek and Red Canyon drainages; draft figure 3-12). The draft used an estimate of 1,500 acres, based on a corridor 25 feet wide along all of the creeks shown in draft table 3-6. The estimate for riparian/aquatic habitat in the final EIS is 6,000 acres, based on a corridor 100 feet wide along all of the creeks shown in revised table 3-6. The intent of the MSA, however, was to consider the riparian and aquatic habitats along the drainages shown in the MSA, regardless of the means used to estimate the actual riparian corridor.

The habitat areas are relevant because they provide a variety of vegetation for food and cover, as well as a permanent or semipermanent source of water. They are inhabited by a variety of game and nongame wildlife species and serve as habitat for threatened or endangered (T/E) species (bald eagle and fish species). They are also attractive to livestock and for recreation uses. They represent less than 1 percent of the total acreage in SJRA.

Some of the riparian habitat areas extend into the Navajo reservation to the south, Glen Canyon NRA to the south and west, or Grand Resource Area to the north. The riparian areas are interspersed with tracts of state and private lands.

The areas were not proposed in the RMP/EIS as a potential ACEC because existing management practices could be used to protect the habitat through mitigation measures applied to specific projects. The two executive orders cited above mandate a certain level of protection for these areas; an ACEC designation is not necessary to focus management attention on riparian areas because the executive orders have already done so. However, the need to recognize wildlife values in the riparian areas has been carried into the RMP/EIS. Special conditions to protect wildlife habitat would be applied under alternatives B, C, D, and E to any land-use activity within all floodplain or riparian/aquatic habitat areas in SJRA. The special conditions are given in revised appendix A.

Some of the riparian/aquatic areas fall within areas proposed for special designations under other programs. The riparian area in the Montezuma Canyon and Recapture Creek drainages overlaps the Alkali Ridge potential ACEC; the Gypsum Canyon and Dark Canyon drainages overlap the Dark Canyon potential ACEC or potential ONA; the Indian Creek drainage overlaps the Lockhart Basin and North Abajo potential ACECs and the Indian Creek and Shay Canyon proposed ACECs; the Lockhart Canyon drainage overlaps the Lockhart Basin potential ACEC; the Grand Gulch drainage overlaps the Grand Gulch potential ACEC or potential ONA and the Cedar Mesa potential ACEC; and the branches of the Comb Wash drainage overlap the Cedar Mesa potential ACEC and the

Arch Canyon, Fish and Owl Creeks, and Road Canyon potential ONAs. Some of these areas have also been identified as preliminary potential ACECs to protect sensitive soils, hazardous floodplains, or crucial habitat areas for big game species.

#### SCENIC HIGHWAY CORRIDOR

The public nominated the scenic corridor along Utah Highways 95, 261, 275, and 276 (formerly 263) for ACEC designation to protect visual quality as viewed from the road. Under variations of this nomination, the corridor was also nominated to protect recreation values and to protect White Canyon, Comb Wash, Butler Wash, and the Hole-in-the-Rock Trail. The corridor as first described is analyzed under revised alternative D, and a modified version is proposed for ACEC designation under revised alternative D.

The nominations referenced the U-95 scenic corridor study (revised page 3-81) prepared in cooperation with UDOT [BLM, et al., 1978]. That study included a mile-wide strip along the state highways mentioned above. BLM agrees that, based on the U-95 corridor study, the area qualifies for consideration as an ACEC. The White Canyon viewshed has also been considered by itself as a potential ACEC under revised alternative D, and as part of the Scenic Highway Corridor ACEC under revised alternative E. The White Canyon potential ACEC is discussed below.

The scenic corridor contains 60,220 acres of public land, 5,155 acres of state land, 280 acres of private land, and 320 acres within Natural Bridges NM. The corridor, as actually seen from the highways, varies from 0.5 to 2 miles, depending on topography and vegetation present.

An area must be both scenic quality A and unique or very rare within its physiographic province for identification as a candidate potential ACEC for scenic values. BLM has reviewed the Scenic Highway Corridor and does not find that it meets the criteria. The scenic quality rating of the corridor includes classes A, B and C; the canyons and spires are typical of those found throughout the Colorado Plateau.

Because of past cooperative study efforts with the state, county, and other federal agencies, BLM has agreed to recognize the visual elements of the highway corridor and their importance to tourism in the area. The U-95 corridor study identified the viewshed as having picturesque views of the canyonlands continuously along the highway network. The state is considering designating these as scenic highways.

The study corridor is relevant because special management actions are required to prevent irreparable damage to the scenery of the area and to protect the natural character of the corridor. The corridor provides locally, regionally, and nationally significant vistas to those who travel the highway system. It is important because tourists come from a national and international base to view this type of scenery. The majority of those who travel the highway system do not take advantage of back-country scenery in a natural setting; the view from the road is the total of their scenic experience in the area.

Adjacent public lands are used for grazing, recreation, oil and gas exploration, land treatments, and woodcutting. Not all of these uses threaten the scenic values of the area; however, oil and gas exploration or development activities or land treatments near the roads could adversely affect the scenic values present. Management of the corridor to limit the types of surface disturbance would serve to protect the scenery from adverse impacts.

Upon review, BLM agrees that the corridor would benefit from the additional protection afforded by ACEC designation. The draft has been revised to consider the entire corridor examined in the U-95 study as the potential Scenic Highway Corridor ACEC under revised alternative D (60,220 acres; revised figure 2-5).

The proposed Scenic Highway Corridor ACEC under revised alternative E (78,390 acres; revised figure 2-6) has been modified from the U-95 study area. The mile-wide corridor is the same as the potential ACEC under revised alternative D with the following exceptions. Under revised alternative E, the corridor was enlarged in the vicinity of White Canyon to include the tribu-

taries of White Canyon as viewed from Utah Highway 95 (the rationale is discussed under White Canyon, below). The access road to Natural Bridges NM was eliminated from the proposed ACEC because NPS manages surface use within the corridor along the access road. The eastern end of the corridor along U-95 was eliminated from the proposed ACEC because the scenery across the top of Black Mesa, from Shirttail Junction south of Blanding to the Butler Wash ruin, is not of the same caliber as the remainder of the corridor system. In the remainder of the corridor, BLM agrees that the scenery as viewed from the road would benefit from management as an ACEC.

The roads in Comb Wash, Butler Wash, and the Hole-in-the-Rock Trail were also included in some versions of this nomination. These areas were not part of the U-95 study. They do not experience the high travel rate that the state highways have. BLM did not find that any benefit to tourism would occur if these roads were included in the potential ACEC.

The ACEC nomination is also based on recreation values. While an ACEC designation may be made to protect natural, scenic, or other resource values that lead to recreation opportunities, the designation is not appropriate based on recreation values alone.

#### VALLEY OF THE GODS

The Valley of the Gods area was nominated for ACEC designation based on the scenic values viewed from U.S. Highway 163 between Comb Ridge and Utah Highway 261, and between U.S. 163 and the south cliffline of Cedar Mesa. This area (38,360 acres) was considered as a potential ACEC under revised alternative D and as a special emphasis area within the Cedar Mesa proposed ACEC under revised alternative E (discussed above).

Valley of the Gods was nominated based on special values of interesting scenic quality and diversity of landform. The wind-sculpted spires and buttes resemble animals or "gods": Seven Sailors, Rooster Butte, Setting Hen Butte, Pyramid Peak, Castle Butte, and Bell Butte are found here.

An area must be both scenic quality A and unique or very rare within its physiographic province for identification as a candidate potential ACEC for scenic values. BLM has reviewed Valley of the Gods and does not find that it meets the criteria. The scenic quality rating for Valley of the Gods has been reviewed and amended to class B. This reclassification in turn caused the VRM class to be upgraded from III to II (revised figure 3-18).

However, Valley of the Gods provides panoramic scenery when viewed from U.S. Highway 163; the situation is similar to the scenic highway corridor discussed above. Because Valley of the Gods has been promoted in the past through the cooperative efforts of BLM, the state, and the county, BLM has agreed to recognize the visual elements of Valley of the Gods and their importance to tourism in the area. The scenery is relevant because special management attention is required to prevent irreparable damage to the rock forms. The predominant vegetation is blackbrush, which is particularly susceptible to permanent damage from surface disturbance because it revegetates slowly, if at all.

Valley of the Gods provides significant vistas to those who travel the highway. It is important to regional, national, and international tourists who view and photograph the area from the Valley of the Gods Loop Road. BLM, the county, and the state have promoted the loop road as part of the Trail of the Ancients. The majority of those who travel the highway system do not take advantage of backcountry scenery in a natural setting; the view from the road is their total scenic experience in the area.

Valley of the Gods contains about 42,080 acres, of which 38,360 acres are public lands, 3,670 acres are state lands, and 320 acres are private lands. The area includes Valley of the Gods, the West Fork Lime Creek, Lime Creek, and the northwest portion of Lime Ridge. The area is used for livestock grazing, and it was used for mineral exploration in the past. Potential long-term threats could come from oil and gas development or mineral-material sales (figures 3-1 and 3-5).

Upon review BLM agrees that Valley of the Gods would benefit from the additional protection afforded by ACEC designation. Management would limit surface disturbance to protect scenery from potential adverse impacts, thus preserving it for future tourists to view and enjoy. The draft has been revised to include the potential Valley of the Gods ACEC under revised alternative D (revised figure 2-5).

The Valley of the Gods nomination falls entirely within the Cedar Mesa nomination (discussed above). To improve management by avoiding multiple overlapping designations, the area is considered as the Valley of the Gods special emphasis area within the proposed Cedar Mesa ACEC (revised figure 2-6); it would be managed to limit surface disturbance to protect the scenery.

#### WHITE CANYON/NATURAL BRIDGES

The White Canyon area was nominated by the public for ACEC designation, both on its own merits and as part of the scenic highway corridor (discussed above). White Canyon was nominated to protect cultural, scenic, and wildlife resources between Utah Highway 95 and the Dark Canyon Primitive Area and between Glen Canyon NRA and Manti-LaSal NF. Other nominations included the area south of U-95 to the face of Wingate Mesa and Tables of the Sun. White Canyon was also nominated as part of a scenic highway corridor complex to protect scenic, cultural, and recreation values between U-95, the Dark Canyon Plateau, and Manti-LaSal NF.

White Canyon was analyzed as a potential ACEC (175,810 acres; revised figure 2-5) under revised alternative D. Part of the area is included within the Scenic Highway Corridor proposed ACEC under revised alternative E.

This nomination covers another nomination received from the public to protect scenic values viewed from Natural Bridges NM, including the lands between the NM and Manti-LaSal NF. This area is included within the White Canyon potential ACEC under alternative D. It is not included as an ACEC proposal under the preferred alternative.

## White Canyon

The White Canyon area was considered as a potential ACEC of 175,810 acres under revised alternative D; it would be managed to protect scenic resources. This includes the greatest extent of all the White Canyon nominations received; it is bounded by Glen Canyon NRA on the west, the southern edge of Dark Canyon Primitive Area on the north, the Manti-LaSal NF to Utan Highway 261 on the east, and the north face of Tables of the Sun and Wingate Mesa on the south. It contains scattered sections of state land and covers Natural Bridges NM. It contains the Cheesebox Canyon WSA and the segment of White Canyon listed in the National Rivers Inventory [Federal Register Vol. 47, No. 173, September 7, 1982].

Under revised alternative E, the side drainages of White Canyon have been included with the Scenic Highway Corridor proposed ACEC (78,390 acres; discussed above) and would be managed to protect scenic values as viewed from U-95 (revised figure 2-6).

An area must be both scenic quality A and unique or very rare within its physiographic province for identification as a candidate potential ACEC for scenic values. White Canyon contains scenic quality A. Although similar to other areas locally, it provides a deeply incised slickrock canyon system that could be considered rare on a regional basis. Based on these characteristics, the nominated area has been analyzed as a potential ACEC to protect scenic values under revised alternative D.

The nominated area is traversed by the scenic highway corridor nomination. The mile-wide strip along U-95 is analyzed as a potential ACEC under revised alternative D and as a proposed ACEC under revised alternative E. The scenic highway corridor covers the main canyon of the White Canyon drainage complex, including the National Rivers Inventory segment. The side canyons of the complex extend northeast from the scenic highway corridor and include Fortknocker, Short, Long, Gravel, Cheesebox, Hideout, and K and L Canyons.

The northern end of the nominated area includes the plateaus south of Dark Canyon, including Lower Horse Flat. These areas are not scenic quality A and are similar to the high, rolling plateaus common in San Juan County. Deer Flat and Harmony Flat on the eastern end of the nominated area provide similar terrain. These areas have experienced land treatments and other range improvements in the past and have several roads and trails threading through them. The southern edge of the nominated area includes the north-facing escarpment of Wingate Mesa and Tables of the Sun south of the scenic highway corridor. This area is hard to see from the highway because it is visually blocked by a lower bench along the mesas.

The nomination also references cultural values in White Canyon. While significant archaeological resources exist in this area, the management guidance proposed for cultural resources (management common to all alternatives, revised chapter 2) and the special conditions developed for sites eligible for listing on the National Register would be sufficient to protect cultural values present; the intensive level of management associated with ACEC designation was not found to be needed to protect cultural resources.

The ACEC nomination is also based on recreation values. While an ACEC designation may be made to protect natural, scenic, or other resource values that would lead to recreation opportunities, the designation is not appropriate based on recreation values alone.

The effects of designating the potential White Canyon ACEC were assessed under revised alternative D. The benefits to scenic resources that would accrue from special management under the ACEC designation were found to be insignificant. The impacts to visual resources would be analyzed on a case-by-case basis through the NEPA documents prepared for projects in the area. The scenic resources present are not currently seen as threatened or at risk from resource development; therefore, the area was not proposed as an ACEC to protect scenic values in the preferred alternative.

Because of the interrelationship of the side canyons to White Canyon and the scenic vistas



from U-95, part of the nominated area has been proposed for ACEC designation under revised alternative E as part of the proposed Scenic Highway Corridor ACEC (78,390 acres; revised figure 2-6). The Scenic Highway Corridor proposed ACEC would be managed to protect scenery as viewed from the state highways. Also included in the proposed ACEC are 3 to 4 miles of the side canyons mentioned above, which are visible from U-95. This includes some of the Cheesebox Canyon WSA.

#### **Natural Bridges**

The area around Natural Bridges NM was nominated for ACEC designation to protect scenic values as viewed from Natural Bridges NM. This area is included within the larger White Canyon potential ACEC analyzed under alternative D. The southern edge of this nomination falls within the scenic highway corridor nomination (discussed above). This nomination was not carried forward on its own merits, however.

An area must be both scenic quality A and unique or very rare within its physiographic province for identification as a candidate potential ACEC

for scenic values. The nominated area includes Harmony Flat, Woodenshoe Buttes, The Heel, The Toe, and Deer Canyon. These areas do not meet the criteria. Deer Canyon is scenic quality A but is similar to several other canyons within the Colorado Plateau. Harmony Flat is scenic quality B, and The Toe and The Heel of Woodenshoe Buttes are scenic quality C.

The Natural Bridges nomination expressed concern with protecting views seen from the NM. BLM recognizes that Congress has directed the NPS to manage surface uses within national parks and national monuments to leave them unimpaired (16 U.S.C. 1). However, Congress did not direct the Secretary to leave public lands adjacent to NPS units undisturbed to preserve park values. Natural Bridges NM was established to protect a relatively small natural feature, although other types of resources were provided for. Congress established the boundaries of Natural Bridges NM with a sufficient internal buffer zone to protect the two natural bridges within the NM and to separate NM visitors from activities on adjacent public lands. An ACEC designation is not believed an appropriate means to provide a buffer around Natural Bridges NM.

## REVISIONS TO APPENDIX I - MANAGEMENT PRESCRIPTIONS FOR SPECIAL DESIGNATION AREAS

### Page Revision

- A-75 4322 GRAZING MANAGEMENT, Bridger Jack and Lavender Mesas. Locate this heading and go to next page listed.
- A-77 Column 2, Alternative E. Bridger Jack and Lavender Mesas would be designated as ACECs instead of RNAs. Replace "RNA" with "ACEC" throughout this section (paragraph 1, line 3; paragraph 2, lines 1, 4, and 8; paragraph 3, line 1; paragraph 4, line 1).
- A-77 Column 2, Alternative E. Paragraph 1 (beginning "The top of Bridger..."), line 3, after "(figure 2-6)" insert "under the authority of 43 CFR 1610.7-2".
- A-77 Column 2, Alternative E. Paragraph 2 (beginning "The ACECs would be..."), delete "managed under the requirements of 43 CFR 2071.1 and".
- A-78 Column 1, 4331 CULTURAL RESOURCES MANAGEMENT, Alkali Ridge and Hovenweep. Locate this heading and go to next page listed.
- A-78 Column 2, paragraph 2 (beginning "The Alkali Ridge..."), line 2, replace "potential scientific use and management use" with "informational potential".
- A-79 Column 1, Alternative D. Paragraph 2 (beginning "The Alkali Ridge..."), line 2, replace "potential scientific use and management use" with "informational potential".

### Page Revision

- A-79 Column 1, Alternative D. Paragraph 3 (beginning "Activities within..."), line 7. After "resources." insert "Cultural properties listed, or eligible for listing, on the National Register would be avoided by a minimum of 250 feet."
- A-79 Column 2, Alternative E. Paragraph 1 (beginning "A smaller area..."), line 3, replace "would" with "and a smaller area around Hovenweep NM (1,500 acres) would each".
- A-79 Column 2, Alternative E. Replace paragraph 2 (beginning "The Alkali Ridge..."), with "The Alkali Ridge and Hovenweep ACECs would be managed for the informational potential and public values of cultural resources."
- A-79 Column 2, Alternative E. Delete paragraph 3 (beginning "The area around Hovenweep").
- A-79 Column 2, Alternative E. Paragraph 4 (beginning "Activities within..."), line 7, after "resources." insert the following:
- Within the Alkali Ridge NHL, cultural properties listed, or eligible for listing, on the National Register would be avoided by a minimum of 200 feet. Within the remainder of the ACEC, they would be avoided by a minimum of 100 feet.

Page Revision

Where cultural properties cannot be avoided by the minimum amount because of site densities or topographic considerations, additional data recovery from the site would be required. Documentation would need to meet the requirements of the Secretary's "Standards and guidelines for Archaeology and Historic Preservation: A Handbook." The supplementary data recovery could range from sample collection of diagnostic artifacts to complete excavation. The activity plan prepared for the Alkali Ridge ACEC will also guide any necessary excavation work.

A-80 Column 1. Replace paragraph 2 (beginning "The ACEC would...") with the following:

The Alkali Ridge ACEC would be:

- open for minerals leasing and geophysical work subject to the special conditions;
- available for the disposal of mineral materials, subject to the special conditions;
- open to mineral entry with an approved plan of operations, subject to the special conditions insofar as possible;
- retained in public ownership and not classified, segregated, or withdrawn from entry;
- available for private and commercial use of woodland products, subject to the special conditions;
- available for livestock use;
- available for land treatments or other range improvements, subject to the special conditions;
- available for wildlife habitat improvements;
- subject to conditional suppression for fires;

Page Revision

- designated as limited to ORV use, with use limited to existing roads and trails; and
- managed as VRM class I.

The Hovenweep ACEC corresponds to the area identified by the NPS in the Cooperative Management Strategies for Hovenweep NM [BLM and NPS, 1987]. Under alternative E, it would be managed to protect cultural resources and wildlife values. It includes two special emphasis areas: Cajon Pond (10 acres) and a visual protection zone (880 acres).

Activities within the Hovenweep ACEC would be approved only with special conditions to protect cultural resources and wildlife values. Surface disturbance would be limited to provide maximum opportunity for the stated cultural resources uses, and to avoid both direct and indirect impacts to cultural resources. Cultural properties listed, or eligible for listing, on the National Register would be avoided by a minimum of 100 feet. Where damage cannot be avoided, impacts would be mitigated through limited or complete excavation. Any surface disturbance would be required to be successfully revegetated within 5 years.

The visual protection zone special emphasis area (880 acres) corresponds with the existing area currently leased with no surface occupancy stipulations. The Cajon Pond special emphasis area (10 acres) contains Cajon Pond, which provides important riparian habitat for waterfowl. It would be managed to protect wildlife habitat.

The Hovenweep ACEC would be:

- open for minerals leasing and geophysical work subject to the special conditions;
- closed to disposal of mineral materials;

Page Revision

- open to mineral entry with an approved plan of operations, subject to the special conditions insofar as possible;
- retained in public ownership and not classified, segregated, or withdrawn from entry;
- excluded from private and commercial use of woodland products, including onsite collection of wood for campfires;
- available for livestock use;
- available for land treatments or other range improvements, subject to the special conditions;
- available for wildlife habitat improvements;
- designated as limited to ORV use, with use limited to designated roads and trails; and
- subject to conditional suppression for fires.

In addition to the above special conditions, the visual protection zone special emphasis area would be:

- open for minerals leasing with stipulations to prevent surface occupancy;
- excluded from grazing improvements or land treatments;

In addition to the above special conditions, the Cajon Pond special emphasis area would be:

- open for minerals leasing and other surface uses with stipulations to prevent surface occupancy or surface disturbance during the shorebird and waterfowl courtship and nesting season (March 1 through June 30 annually); and
- excluded from livestock use within the fenced portion (about 1 acre).

Page Revision

A-80 Column 1, North Abajo, Alternative C. Paragraph 1 (beginning "The North Abajo..."), line 4, delete "for future use"; line 5 replace "use" with "values".

A-80 Column 2, paragraph 3 (beginning "available for land..."), line 3, delete "only so long as cultural resources are avoided by at least 250 feet".

A-80 Column 2, paragraph 4 (beginning "available for wildlife..."), line 3, delete "only so long as cultural resource sites are avoided by at least 250 feet".

A-80 Column 2, Alternative D. Paragraph 1, line 5, delete "for future use"; line 6 replace "use" with "values".

A-80 Column 2, Alternative D. Paragraph 2 (beginning "Activities within..."), line 7, after "resources." insert "Cultural properties listed, or eligible for listing, on the National Register would be avoided by a minimum of 250 feet."

A-81 Column 1, Alternative E. Paragraph 1 (beginning "The main canyon..."), line 5, delete "for future use"; replace "use" with "values". Line 6, after "resources" insert "and to protect aquatic habitat. The Shay Canyon ACEC contains a special emphasis area along upper Indian Creek (200 acres)."

A-81 Column 1, Alternative E. Paragraph 2 (beginning "Activities within..."), line 7, after "resources." insert "Cultural properties listed, or eligible for listing, on the National Register would be avoided by a minimum of 100 feet."

A-81 Column 1, Alternative E. Replace paragraph 3 (beginning "The ACEC would...") with the following:

The ACEC would be:

open for minerals leasing and geophysical work with special conditions;

Page Revision

- available for disposal of mineral materials, subject to the special conditions;
- open to mineral entry with an approved plan of operations, subject to the special conditions insofar as possible;
- retained in public ownership and not classified, segregated, or withdrawn from entry;
- excluded from private or commercial use of woodland products, except for limited onsite collection of dead wood for campfires;
- available for livestock use;
- excluded from construction of range improvements or land treatments;
- available for wildlife habitat improvements, subject to the special conditions;
- designated as limited to ORV use, with use limited to existing roads and trails;
- managed as VRM class I; and
- subject to conditional suppression for fires.

Within the upper Indian Creek special emphasis area (200 acres), management to protect riparian and aquatic habitat would be emphasized. The special emphasis area is a 200-foot-wide corridor centered on Indian Creek.

In addition to the above special conditions, the upper Indian Creek special emphasis area would be:

- managed to protect riparian and aquatic habitats from degradation, and to protect and increase the extent of fishery habitat.

Page Revision

- A-81 Column 2, Grand Gulch, Alternative C. Paragraph 2 (beginning "The ACEC would..."), line 1, replace "potential scientific use and public use" with "informational potential and public values".
- A-82 Columns 1 and 2, Alternatives D and E. Delete the entire discussion for alternatives D and E on pages A-82 and A-83 and replace with the following:

Alternative D. The entire proposed Cedar Mesa archaeologic district (404,710 acres) would be designated as the Cedar Mesa ACEC (revised figure 2-5) under the authority of 43 CFR 1610.7-2. This area contains the Grand Gulch archaeologic district and the Grand Gulch primitive area. The ACEC lies entirely within a natural succession area.

The ACEC would be managed to protect scenic, cultural and natural values associated with primitive recreation. Cultural resources would be managed for informational potential, public values, and conservation. The ACEC contains eight ONAs, which would be managed under the special conditions for natural succession areas. Within the ONAs, recreational use would be emphasized.

Activities within the ACEC would be approved only with special conditions to protect the cultural and visual resources. Surface use would be limited to provide the opportunity for the stated cultural resource objective. Both direct and indirect damage to cultural resources would be avoided. Cultural properties listed, or eligible for listing, on the National Register would be avoided by a minimum of 250 feet. Where damage cannot be avoided, impacts would be mitigated through limited or complete excavation. Any surface disturbance would be required to be successfully revegetated (with native species naturally occurring in the vicinity) to match pre-existing conditions within 1 year.

Page Revision

The ACEC would be:

- closed to minerals leasing;
- available for geophysical work subject to the special conditions;
- closed to the disposal of mineral materials;
- retained in public ownership and classified as segregated from entry (a Secretarial withdrawal would be requested);
- excluded from private and commercial use of woodland products, except for limited onsite collection of dead wood for campfires;
- available for livestock use and range improvements, subject to the special conditions;
- excluded from land treatments;
- available for wildlife habitat improvements subject to the special conditions;
- designated as closed to ORV use; and
- managed as VRM class I, with only those projects that meet class I objectives allowed.

Alternative E. A smaller portion of the proposed Cedar Mesa archaeologic district (323,760 acres) would be designated as the Cedar Mesa ACEC (revised figure 2-6) under the authority of 43 CFR 1610.7-2. This area contains the Grand Gulch archaeologic district and the Grand Gulch Primitive Area. It includes two special emphasis areas: Grand Gulch (49,130 acres) and Valley of the Gods (36,800 acres). The Scenic Highway Corridor ACEC (designated under program 4333) overlaps 21,380 acres.

Page Revision

The ACEC would be designated jointly under program 4331 and 4333 and would be managed to protect cultural resources, scenic values, and natural values associated with primitive recreation. Cultural resources would be managed for informational potential, public values, and conservation.

Activities within the ACEC would be approved only with special conditions to protect the cultural and visual resources and primitive recreation opportunities. Areas within the P ROS class would be managed to maintain that class. Surface disturbance would be limited to provide maximum opportunity for the stated cultural resource objective, and to avoid both direct and indirect damage to cultural resources. Cultural properties listed, or eligible for listing, on the National Register would be avoided by a minimum of 150 feet. Where damage cannot be avoided, impacts would be mitigated through limited or complete excavation. Any surface disturbance would be required to be successfully revegetated within 5 years.

The ACEC would be:

- open for minerals leasing and geophysical work subject to the special conditions;
- available for the disposal of mineral materials subject to the special conditions;
- retained in public ownership and not classified, segregated, or withdrawn from mineral entry;
- available for private and commercial use of woodland products, subject to the special conditions;
- available for livestock use;
- available for land treatments or other range improvements, subject to the special conditions;

Page Revision

- available for wildlife habitat improvements subject to the special conditions; and
- designated as limited to ORV use, with use limited to designated roads and trails.

The Grand Gulch special emphasis area and P ROS class areas within the ACEC would be managed to protect scenic values, natural values associated with primitive recreation, and cultural values. The Valley of the Gods special emphasis area would be managed to protect scenic values. The Grand Gulch and Valley of the Gods special emphasis areas and the P ROS class areas within the ACEC would be protected from surface disturbance to the maximum extent possible to protect scenic values and to provide the maximum opportunity for the stated cultural resource uses. Any surface disturbance would be required to be successfully revegetated (with native species naturally occurring in the vicinity) to match pre-existing conditions within 1 year.

The Grand Gulch and Valley of the Gods special emphasis areas and the P ROS class areas within the ACEC would be:

- open for minerals leasing with stipulations to prevent surface occupancy;
- available for geophysical work subject to the special conditions;
- closed to the disposal of mineral materials;
- retained in public ownership and classified as segregated from entry (a Secretarial withdrawal would be requested);
- excluded from private and commercial use of woodland products, except for limited onsite collection of dead wood for campfires;

Page Revision

- managed as VRM class I with only projects that meet class I objectives allowed;
- available for livestock use, except for a portion of Grand Gulch (11,200 acres);
- excluded from construction of range projects or land treatments;
- designated as closed to ORV use; and
- managed to limit recreational use if cultural resources or scenic values are being damaged.

Beef Basin, Alternatives A, B and C

No special management prescriptions have been developed. Projects would be analyzed individually to provide for mitigation of adverse environmental impacts. Under alternative A, part of this area is closed to oil and gas leasing and part is open with stipulations to prevent surface occupancy to protect recreational and cultural values.

Alternative D. The Beef Basin area (66,450 acres) would be designated as an ACEC (revised figure 2-5) under the authority of 43 CFR 1610.7-2. The ACEC lies entirely within a natural succession area. It coincides with the Beef Basin SRMA and contains the proposed Beef Basin archaeologic district. The Beef Basin ACEC would be designated jointly under programs 4331 and 4333 and managed to protect scenic and cultural values. Cultural resources would be managed for informational potential, public values, and conservation.

Activities within the ACEC would be approved only with special conditions to protect the cultural and visual resources. Surface use would be limited to provide the opportunity for the stated cultural resource uses. Both direct and indirect damage to cultural resources

Page Revision

would be avoided. Cultural properties listed, or eligible for listing, on the National Register would be avoided by a minimum of 250 feet. Where damage cannot be avoided, impacts would be mitigated through limited or complete excavation. Any surface disturbance would be required to be successfully revegetated (with native species naturally occurring in the vicinity) to match pre-existing conditions within 1 year.

The ACEC would be:

- closed to minerals leasing;
- available for geophysical work subject to the special conditions;
- closed to the disposal of mineral materials;
- retained in public ownership and classified as segregated from entry (a Secretarial withdrawal would be requested);
- excluded from private and commercial use of woodland products, except for limited onsite collection of dead wood for campfires;
- available for livestock use and range improvements, subject to the special conditions;
- excluded from land treatments;
- available for wildlife habitat improvements subject to the special conditions;
- designated as closed to ORV use; and
- managed as VRM class I, with only those projects that meet class I objectives allowed.

Alternative E. A smaller portion of the Beef Basin SRMA (13,870 acres) would be designated as the Butler Wash ACEC (re-

Page Revision

vised figure 2-6) under the authority of 43 CFR 1610.7-2. The ACEC would be designated under program 4333 and would be managed to protect scenic values. It would be managed the same as the Indian Creek ACEC for alternative E under program 4333; please refer to that section.

Moki-Red Canyon, Alternatives A, B and C. No special management prescriptions have been developed. Projects would be analyzed individually to provide for mitigation of adverse environmental impacts. Under alternative A, part of this area is closed to oil and gas leasing and part is open with stipulations to prevent surface occupancy to protect recreational and cultural values.

Alternative D. The area between Moki and Red Canyons (71,020 acres) would be designated as an ACEC (revised figure 2-5) under the authority of 43 CFR 1610.7-2. Most of the ACEC lies within a natural succession area. Cultural resources would be managed for informational potential.

Activities within the ACEC would be approved only with special conditions to protect the cultural and visual resources. Surface use would be limited to provide the opportunity for the stated cultural resource uses. Both direct and indirect damage to cultural resources would be avoided. Cultural properties listed, or eligible for listing, on the National Register would be avoided by a minimum of 250 feet. Where damage cannot be avoided, impacts would be mitigated through limited or complete excavation. Any surface disturbance would be required to be successfully revegetated (with native species naturally occurring in the vicinity) to match pre-existing conditions within 1 year.

The ACEC would be:

- closed to minerals leasing;



Page Revision

- available for geophysical work subject to the special conditions;
- closed to the disposal of mineral materials;
- retained in public ownership and classified as segregated from entry (a Secretarial withdrawal would be requested);
- excluded from private and commercial use of woodland products, except for limited onsite collection of dead wood for campfires;
- available for livestock use and range improvements, subject to the special conditions;
- excluded from land treatments;
- available for wildlife habitat improvements subject to the special conditions;
- designated as closed to ORV use (except that the road in Red Canyon would remain open); and
- managed as VRM class I, with only those projects that meet class I objectives allowed.

Alternative E. No special management prescriptions have been developed, except that part of the area falls within P or SPNM ROS class and would be managed under the special conditions developed to protect primitive recreational values (see appendix A). Special conditions have also been developed for the RN ROS class on Mancos Mesa, which would also apply to this area. Projects would be analyzed individually to provide for mitigation of adverse environmental impacts.

Nokai Dome, Alternatives A, B and C

No special management prescriptions have been developed. Projects would be analyzed individually to provide for mitigation of adverse environmental impacts.

Page Revision

Alternative D. The area around Nokai Dome, Castle Creek and Mike's Canyon (90,850 acres) would be designated as an ACEC (revised figure 2-5) under the authority of 43 CFR 1610.7-2. The ACEC lies entirely within a natural succession area. Cultural resources would be managed for informational potential.

Activities within the ACEC would be approved only with special conditions to protect the cultural and visual resources. Surface use would be limited to provide the opportunity for the stated cultural resource uses. Both direct and indirect damage to cultural resources would be avoided. Cultural properties listed, or eligible for listing, on the National Register would be avoided by a minimum of 250 feet. Where damage cannot be avoided, impacts would be mitigated through limited or complete excavation. Any surface disturbance would be required to be successfully revegetated (with native species naturally occurring in the vicinity) to match pre-existing conditions within 1 year.

The ACEC would be:

- closed to minerals leasing;
- available for geophysical work subject to the special conditions;
- closed to the disposal of mineral materials;
- retained in public ownership and classified as segregated from entry (a Secretarial withdrawal would be requested);
- excluded from private and commercial use of woodland products, except for limited onsite collection of dead wood for campfires;
- available for livestock use and range improvements, subject to the special conditions;

Page Revision

- excluded from land treatments;
- available for wildlife habitat improvements subject to the special conditions;
- designated as closed to ORV use (except the Hole-in-the-Rock Trail would remain open); and
- managed as VRM class I, with only those projects that meet class I objectives allowed.

Alternative E. No special management prescriptions have been developed, except that part of the area falls within P or SPNM ROS class and would be managed under the special conditions developed to protect primitive recreational values (see appendix A). Projects would be analyzed individually to provide for mitigation of adverse environmental impacts.

- A-83 Column 2, 4333 Recreation/Visual Resources Management. Locate this heading and go to next page listed.
- A-84 Column 2, Slickhorn Canyon, Alternative D. Paragraph 1 (beginning "Slickhorn Canyon and..."), line 4, after "8352." insert "The ONA falls within the Cedar Mesa ACEC designated jointly under programs 4331 and 4333; see the discussion for this area under program 4331."
- A-84 Column 2, Slickhorn Canyon, Alternative E. Paragraph 1, replace the first two sentences (beginning "The southern...") with "Slickhorn Canyon and the surrounding area falls within the Cedar Mesa ACEC designated jointly under programs 4331 and 4333; see the discussion for this area under program 4331."
- A-84 Column 2, Johns Canyon. Locate this heading and go to next page listed.
- A-85 Column 1, Alternative D. Paragraph 1 (beginning "Johns Canyon and..."), line 3, after "8352." insert "The ONA falls within

Page Revision

the Cedar Mesa ACEC designated jointly under programs 4331 and 4333; see the discussion for this area under program 4331."

- A-85 Column 1, Alternative E. Paragraph 1, replace the first two sentences (beginning "The southern...") with "Johns Canyon and the surrounding area falls within the Cedar Mesa ACEC designated jointly under programs 4331 and 4333; see the discussion for this area under program 4331."
- A-85 Column 1, Fish and Owl Canyons, Alternative D. Paragraph 1 (beginning "The area surrounding..."), line 4, after "8352." insert "The ONA falls within the Cedar Mesa ACEC designated jointly under programs 4331 and 4333; see the discussion for this area under program 4331."
- A-85 Column 2, Alternative E. Paragraph 1, replace the first sentence (beginning "No special...") with "The area surrounding Fish and Owl Canyons falls within the Cedar Mesa ACEC designated jointly under programs 4331 and 4333; see the discussion for this area under program 4331."
- A-85 Column 2, Road Canyon, Alternative D. Paragraph 1 (beginning "Road Canyon and..."), line 3, after "8352." insert "The ONA falls within the Cedar Mesa ACEC designated jointly under programs 4331 and 4333; see the discussion for this area under program 4331."
- A-85 Column 2, Alternative E. Paragraph 1, replace the first sentence (beginning "No special...") with "Road Canyon and the surrounding area falls within the Cedar Mesa ACEC designated jointly under programs 4331 and 4333; see the discussion for this area under program 4331."
- A-85 Column 2, Lime Canyon. Locate this heading and go to next page listed.
- A-86 Column 1, Alternative D. Paragraph 1 (beginning "Lime Canyon and..."), line 3,

Page Revision

after "8352." insert "The ONA falls within the Cedar Mesa ACEC designated jointly under programs 4331 and 4333; see the discussion for this area under program 4331."

A-86 Column 1, Alternative E. Paragraph 1, replace the first sentence (beginning "No special...") with "Lime Canyon and the surrounding area falls within the Cedar Mesa ACEC designated jointly under programs 4331 and 4333; see the discussion for this area under program 4331."

A-86 Column 1, Mule Canyon, Alternative D. Paragraph 1 (beginning "Mule Canyon and..."), line 3, after "8352." insert "The ONA falls within the Cedar Mesa ACEC designated jointly under programs 4331 and 4333; see the discussion for this area under program 4331."

A-86 Column 2, Alternative E. Paragraph 1, replace the first sentence (beginning "No special...") with "Mule Canyon and the surrounding area falls within the Cedar Mesa ACEC designated jointly under programs 4331 and 4333; see the discussion for this area under program 4331."

A-86 Column 2, Arch Canyon, Alternative D. Paragraph 1 (beginning "Arch Canyon and..."), line 3, after "8352." insert "The ONA falls within the Cedar Mesa ACEC designated jointly under programs 4331 and 4333; see the discussion for this area under program 4331."

A-86 Column 2, Alternative E. Paragraph 1, replace the first sentence (beginning "No special...") with "Arch Canyon and the surrounding area falls within the Cedar Mesa ACEC designated jointly under programs 4331 and 4333; see the discussion for this area under program 4331."

A-86 Column 2, Lockhart Basin. Locate this heading and go to next page listed.

Page Revision

A-87 Column 2, Alternative E. Delete the entire discussion under alternative E and replace with the following:

Alternative E. A smaller area around Indian Creek (13,100 acres) would be designated as the Indian Creek ACEC (revised figure 2-6) under the authority of 43 CFR 1610.7-2. The ACEC would be managed to protect scenic values.

Activities within the ACEC would be approved only with special conditions to protect the scenic values. Any surface disturbance would be required to be successfully revegetated (with native species naturally occurring in the vicinity) to visually match pre-existing conditions within 1 year.

The ACEC would be:

- closed to minerals leasing;
- available for geophysical work subject to the special conditions;
- closed to the disposal of mineral materials;
- retained in public ownership and classified as segregated from entry (a Secretarial withdrawal would be requested);
- excluded from private and commercial use of woodland products, except for limited onsite collection of dead wood for campfires;
- available for livestock use;
- excluded from construction of range improvements or land treatments;
- available for wildlife habitat improvements subject to the special conditions;
- designated as closed to ORV use;

Page Revision

- managed to limit recreational use if scenic values are being damaged; and
- managed as VRM class I, with only those projects that meet class I objectives allowed.

A-87 Column 2, before 4351 Habitat Management, insert the following:

Butler Wash, Alternatives A, B, C, and D.  
See discussion for Beef Basin under program 4331.

Alternative E. Compared to the Beef Basin ACEC under Alternative D (see program 4331), a smaller area around Butler Wash (13,870 acres) would be designated as the Butler Wash ACEC (revised figure 2-6) under the authority of 43 CFR 1610.7-2. The ACEC would be managed to protect scenic values.

Activities within the ACEC would be approved only with special conditions to protect the scenic values. Any surface disturbance would be required to be successfully revegetated (with native species naturally occurring in the vicinity) to visually match pre-existing conditions within 1 year.

The ACEC would be:

- closed to minerals leasing;
- available for geophysical work subject to the special conditions;
- closed to the disposal of mineral materials;
- retained in public ownership and classified as segregated from entry (a Secretarial withdrawal would be requested);
- excluded from private and commercial use of woodland products, except for limited onsite collection of dead wood for campfires;

Page Revision

- available for livestock use;
- excluded from construction of range improvements or land treatments;
- available for wildlife habitat improvements subject to the special conditions;
- designated as closed to ORV use;
- managed to limit recreational use if scenic values are being damaged; and
- managed as VRM class I, with only those projects that meet class I objectives allowed.

Scenic Highway Corridor, Alternatives A, B, and C. No special management prescriptions have been developed. Projects would be analyzed individually to provide for mitigation of adverse environmental impacts.

Alternative D. The scenic corridor (60,220 acres) described in the U-95 Highway Corridor Study [BLM, et al., 1978] would be designated as the Scenic Highway Corridor ACEC (revised figure 2-5) under the authority of 43 CFR 1610.7-2 to protect scenic values as viewed from highways U-95, U-261 and U-276. The ACEC partially overlaps natural succession areas; 13,020 acres fall outside of the natural succession areas. Part of the ACEC overlaps the White Canyon, Cedar Mesa and the Valley of the Gods ACECs.

The entire ACEC would be managed under the special conditions for the natural succession areas. Activities within the ACEC would be approved only with special conditions to protect the scenic values. Any surface disturbance would be prevented to the maximum extent possible to preserve and protect visual resources. All surface disturbance must be reclaimed within 1 year to meet the original conditions.

Page Revision

The ACEC would be:

- closed to minerals leasing;
- available for geophysical work subject to the special conditions;
- closed to the disposal of mineral materials;
- retained in public ownership and classified as segregated from entry (a Secretarial withdrawal would be requested);
- excluded from private and commercial use of woodland products, except for limited onsite collection of dead wood for campfires;
- available for livestock use and range improvements, subject to the special conditions;
- excluded from land treatments;
- available for wildlife habitat improvements subject to the special conditions;
- designated as closed to ORV use; and
- managed as VRM class I, with only those projects that meet class I objectives allowed.

Alternative E. A shorter section of the scenic highway corridor along with part of the White Canyon viewsned (78,390 acres) would be designated as the Scenic Highway Corridor ACEC (revised figure 2-6) under the authority of 43 CFR 1610.7-2. The ACEC would be managed to protect scenic values. The ACEC crosses the Cedar Mesa ACEC.

Activities within the ACEC would be approved only with special conditions to protect the scenic values. Any surface disturbance would be required to be successfully revegetated (with native species naturally occurring in the vicinity) to

Page Revision

visually match pre-existing conditions within 1 year.

The ACEC would be:

- closed to minerals leasing;
- available for geophysical work subject to the special conditions;
- closed to the disposal of mineral materials;
- retained in public ownership and classified as segregated from entry (a Secretarial withdrawal would be requested);
- excluded from private and commercial use of woodland products, including limited onsite collection of dead wood for campfires;
- available for livestock use;
- excluded from construction of range improvements or land treatments;
- available for wildlife habitat improvements subject to the special conditions;
- designated as closed to ORV use;
- managed to limit recreational use if scenic values are being damaged; and
- managed as VRM class I, with only those projects that meet class I objectives allowed.

White Canyon, Alternatives A, B and C. No special management prescriptions have been developed. Projects would be analyzed individually to provide for mitigation of adverse environmental impacts. Under alternative A, part of this area is open to oil and gas leasing with stipulations to prevent surface occupancy to protect recreational and cultural values, and part is open with special conditions to protect bighorn sheep habitat.

Alternative D. The White Canyon area (175,810 acres) would be designated as an ACEC (figure 2-5) under the authority of 43 CFR 1610.7-2. The ACEC lies partially within a natural succession area. It overlaps the Scenic Highway Corridor ACEC. The White Canyon ACEC would be managed to protect scenic values. Cultural resources would be managed for informational potential.

Activities within the ACEC would be approved only with special conditions to protect the scenic values. Any surface disturbance would be required to be successfully revegetated (with native species naturally occurring in the vicinity) to match pre-existing conditions within 5 years.

The portion of the ACEC within the natural succession area would be managed in accordance with the requirements for those areas (revised appendix A).

The portion of the ACEC that is not in a natural succession area (27,500 acres) would be:

- open for minerals leasing with stipulations to prevent surface occupancy;
- available for geophysical work subject to the special conditions;
- closed to the disposal of mineral materials;
- open to mineral entry with an approved plan of operations, subject to the special conditions;
- retained in public ownership and not classified, segregated, or withdrawn from entry;
- excluded from private and commercial use of woodland products, except for limited onsite collection of dead wood for campfires;

- available for livestock use and range improvements, subject to the special conditions;
- excluded from land treatments;
- available for wildlife habitat improvements subject to the special conditions;
- designated as limited to ORV use, with use limited to existing roads and trails; and
- managed as VRM class I, with only those projects that meet class I objectives allowed.

Alternative E. A smaller portion of the White Canyon viewshed would be included as part of the Scenic Highway Corridor ACEC (revised figure 2-6). Please refer to the discussion for the Scenic Highway Corridor under this program.

Valley of the Gods, Alternatives A, B and C. No special management prescriptions have been developed. Projects would be analyzed individually to provide for mitigation of adverse environmental impacts. Under alternative A, part of this area is open to oil and gas leasing with special conditions to protect recreational and cultural values.

Alternative D. The Valley of the Gods area (38,360 acres) would be designated as an ACEC (revised figure 2-5) under the authority of 43 CFR 1610.7-2. The ACEC falls entirely within the Cedar Mesa ACEC designated jointly under programs 4331 and 4333, and falls within a natural succession area. This ACEC would be managed to protect scenic values.

The ACEC would be:

- closed to minerals leasing;
- available for geophysical work subject to the special conditions;

Page Revision

- closed to the disposal of mineral materials;
- retained in public ownership and classified as segregated from entry (a Secretarial withdrawal would be requested);
- excluded from private and commercial use of woodland products, except for limited onsite collection of dead wood for campfires;
- available for livestock use;
- excluded from construction of new land treatments;
- excluded from construction of new wildlife habitat improvements;
- designated as closed to ORV use; and
- managed as VRM class I, with only those projects that meet class I objectives allowed.

Page Revision

Alternative E. The Valley of the Gods area (36,800 acres) would be the Valley of the Gods special emphasis area within the Cedar Mesa ACEC. See the discussion for the Cedar Mesa ACEC, alternative E, under the 4331 program.

A-87 Column 2, 4351 Habitat Management, Cajon Pond. Locate this heading and go to next page listed.

A-88 Column 1, Alternative E. Delete the entire discussion for the Cajon Pond ACEC and replace with the following:

Alternative E. The area around Cajon Pond (10 acres) would be the Cajon Pond special emphasis area within the Hovenweep ACEC. See the discussion for the Hovenweep ACEC, alternative E, under the 4331 program.

## REVISIONS TO APPENDIX J - RANGE MONITORING PROCEDURES

### Page Revision

A-90 Column 1, Trend Studies. Replace paragraph 3 (beginning "Data will be...") with "Frequency of data collection will vary depending on the allotment category and changes in grazing management. Gen-

erally, trend data will be collected at 3-year intervals on I allotments and at 5- to 10-year intervals on M and C allotments."



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## REVISIONS TO APPENDIX K - BUDGET COSTS OF IMPLEMENTING EACH ALTERNATIVE

<u>Page</u>	<u>Revision</u>
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A-93	Table AK-2. The revised table is printed at the end of this section.
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A-94	Table AK-3. The revised table is printed at the end of this section.
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A-95	Table AK-4. The revised table is printed at the end of this section.
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A-96	Table AK-5. The revised table is printed at the end of this section.
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A-97	Column 1, paragraph 1 (beginning "The projected..."), line 3. Replace "alternatives E, B, C, and D, respectively" with "alternatives D, E, C, and B, respectively".
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A-97	Column 1, paragraph 2 (beginning "Management costs under alternative B..."), line 2. Replace "33 percent" with "47 percent".
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<u>Page</u>	<u>Revision</u>
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A-97	Column 1, paragraph 3 (beginning "Management costs under alternative C..."), line 2. Replace "143 percent" with "43 percent".
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A-97	Column 2, paragraph 2 (beginning "Management costs under alternative D..."), line 2. Replace "143 percent" with "26 percent".
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A-97	Column 2, paragraph 3 (beginning "Management costs under alternative E..."), line 2. Replace "29 percent" with "31 percent". Revise last two lines to read "for recreation, wildlife, and livestock."
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TABLE AK-2

Comparison of Support Requirements Under Alternative B  
(in thousands of dollars)

Subactivity/Program	Alternative A				Alternative B			
	SJRA Labor Cost	MDO Labor Cost	Non- labor Cost	Total	SJRA Labor Cost	MDO Labor Cost	Non- labor Cost	Total
2300 Access	0.0	2.9	0.0	2.9	0.0	2.9	0.0	2.9
4111 Oil and Gas	87.5	79.6	66.4	233.5	92.3	83.9	69.8	246.0
4121 Coal	0.0	0.0	0.0	0.0	4.0	3.6	2.0	9.6
4122 Tar Sand	0.1	0.1	0.1	0.3	0.1	0.1	0.1	0.3
4131 Mineral Materials	7.0	2.1	1.5	10.6	7.0	2.1	1.5	10.6
4132 Mining Law	8.8	2.0	2.3	13.1	8.8	2.0	2.3	13.1
4211 Rights-of-Way	23.4	7.1	5.0	35.5	25.7	7.9	5.5	39.1
4212 Lands	30.6	18.8	11.7	61.1	23.0	14.1	8.8	45.9
4220 Withdrawals	2.1	1.0	0.5	3.6	4.4	2.0	1.1	7.5
4311 Forest Management	9.6	1.4	7.4	18.4	9.6	1.4	7.4	18.4
4322 Grazing	87.4	38.1	41.6	167.1	118.8	85.8	128.3	332.9
4331 Cultural	93.7	21.1	71.2	186.0	78.4	17.7	60.6	156.7
4333 Recreation	23.9	6.8	16.8	47.5	23.9	6.8	16.4	47.1
4341 Soil, Water, Air	7.2	16.1	15.6	38.9	7.2	16.1	15.6	38.9
4342 Hazardous Waste	0.0	0.4	0.2	0.6	0.0	0.4	0.2	0.6
4351 Habitat Management	13.3	8.2	55.1	76.6	13.3	8.2	55.1	76.6
4352 Endangered Species	7.3	4.5	3.3	15.1	7.3	4.5	3.3	15.1
4360 Fire Management	0.0	6.3	3.4	9.7	0.0	6.3	3.4	9.7
4410 Planning	15.1	27.7	10.2	53.0	16.4	28.3	10.6	55.3
4420 Data Management	0.0	0.0	0.2	0.2	0.0	0.0	0.2	0.2
4610 Presuppression	18.3	12.3	11.2	41.8	18.3	12.3	11.2	41.8
4620 Firefighting	2.9	8.6	17.1	28.6	2.5	7.3	14.5	24.3
4630 Fire Rehab.	0.0	0.2	0.1	0.3	0.0	0.2	0.1	0.3
4711 Building Maint.	4.6	2.6	41.2	48.4	4.7	2.7	42.3	49.7
4712 Recreation Maint.	6.0	8.1	29.8	43.9	6.0	8.1	29.8	43.9
4713 Transportation	1.4	6.0	43.3	50.7	1.4	6.0	43.3	50.7
4714 Engineering	0.0	3.0	3.0	6.0	0.0	3.2	3.0	6.2
4820 Equal Employment	0.0	1.3	0.5	1.8	0.0	1.3	0.5	1.8
4830 Support Services	6.9	32.2	18.0	57.1	7.1	34.2	19.0	60.3
8100 Range Improve.	0.0	34.3	30.4	64.7	0.0	281.5	257.9	539.4
9350 Quarters Maint.	4.9	0.0	0.8	5.7	4.9	0.0	0.8	5.7
TOTAL	462.0	352.8	507.9	1,322.7	485.1	650.9	814.6	1,950.6

TABLE AK-3

Comparison of Support Requirements Under Alternative C  
(in thousands of dollars)

Subactivity/Program	Alternative A				Alternative C			
	SJRA Labor Cost	MDO Labor Cost	Non- labor Cost	Total	SJRA Labor Cost	MDO Labor Cost	Non- labor Cost	Total
2300 Access	0.0	2.9	0.0	2.9	0.0	2.9	0.0	2.9
4111 Oil and Gas	87.5	79.6	66.4	233.5	92.3	83.9	69.8	246.0
4121 Coal	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4122 Tar Sand	0.1	0.1	0.1	0.3	0.1	0.1	0.1	0.3
4131 Mineral Materials	7.0	2.1	1.5	10.6	7.0	2.1	1.5	10.6
4132 Mining Law	8.8	2.0	2.3	13.1	13.2	3.0	13.4	29.6
4211 Rights-of-Way	23.4	7.1	5.0	35.5	30.4	9.3	6.5	46.2
4212 Lands	30.6	18.8	11.7	61.1	23.0	14.1	8.8	45.9
4220 Withdrawals	2.1	1.0	0.5	3.6	4.4	2.0	1.1	7.5
4311 Forest Management	9.6	1.4	7.4	18.4	9.6	1.4	1.4	12.4
4322 Grazing	87.4	38.1	41.6	167.1	91.6	55.3	76.3	223.2
4331 Cultural	93.7	21.1	71.2	186.0	114.7	25.8	87.9	228.4
4333 Recreation	23.9	6.8	16.8	47.5	49.6	14.2	51.2	115.0
4341 Soil, Water, Air	7.2	16.1	15.6	38.9	7.2	16.1	15.6	38.9
4342 Hazardous Waste	0.0	0.4	0.2	0.6	0.0	0.4	0.2	0.6
4351 Habitat Management	13.3	8.2	55.1	76.6	19.9	12.3	134.6	166.8
4352 Endangered Species	7.3	4.5	3.3	15.1	7.3	4.5	3.3	15.1
4360 Fire Management	0.0	6.3	3.4	9.7	0.0	6.3	3.4	9.7
4410 Planning	15.1	27.7	10.2	53.0	17.4	28.4	11.0	56.8
4420 Data Management	0.0	0.0	0.2	0.2	0.0	0.0	0.2	0.2
4610 Presuppression	18.3	12.3	11.2	41.8	18.3	12.3	11.2	41.8
4620 Firefighting	2.9	8.6	17.1	28.6	2.5	7.3	14.5	24.3
4630 Fire Rehab.	0.0	0.2	0.1	0.3	0.0	0.2	0.1	0.3
4711 Building Maint.	4.6	2.6	41.2	48.4	4.9	2.8	44.1	51.8
4712 Recreation Maint.	6.0	8.1	29.8	43.9	17.2	23.3	77.5	118.0
4713 Transportation	1.4	6.0	43.3	50.7	1.4	6.0	43.3	50.7
4714 Engineering	0.0	3.0	3.0	6.0	0.0	3.1	2.9	6.0
4820 Equal Employment	0.0	1.3	0.5	1.8	0.0	1.4	0.6	2.0
4830 Support Services	6.9	32.2	18.0	57.1	7.3	34.3	19.2	60.8
8100 Range Improve.	0.0	34.3	30.4	64.7	0.0	142.4	130.6	273.0
9350 Quarters Maint.	4.9	0.0	0.8	5.7	4.9	0.0	0.8	5.7
TOTAL	462.0	352.8	507.9	1,322.7	544.2	515.2	831.1	1,890.5

TABLE AK-4

Comparison of Support Requirements Under Alternative D  
(in thousands of dollars)

Subactivity/Program	Alternative A				Alternative D			
	SJRA Labor Cost	MDO Labor Cost	Non- labor Cost	Total	SJRA Labor Cost	MDO Labor Cost	Non- labor Cost	Total
2300 Access	0.0	2.9	0.0	2.9	0.0	2.9	0.0	2.9
4111 Oil and Gas	87.5	79.6	66.4	233.5	43.9	39.9	33.2	117.0
4121 Coal	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4122 Tar Sand	0.1	0.1	0.1	0.3	0.1	0.1	0.1	0.3
4131 Mineral Materials	7.0	2.1	1.5	10.6	7.0	2.1	1.5	10.6
4132 Mining Law	8.8	2.0	2.3	13.1	11.4	2.6	12.9	26.9
4211 Rights-of-Way	23.4	7.1	5.0	35.5	37.4	11.4	8.0	56.8
4212 Lands	30.6	18.8	11.7	61.1	23.0	14.1	8.8	45.9
4220 Withdrawals	2.1	1.0	0.5	3.6	8.9	4.1	2.3	15.3
4311 Forest Management	9.6	1.4	7.4	18.4	9.6	1.4	11.4	22.4
4322 Grazing	87.4	38.1	41.6	167.1	79.1	146.5	65.0	290.6
4331 Cultural	93.7	21.1	71.2	186.0	137.6	31.0	44.3	212.9
4333 Recreation	23.9	6.8	16.8	47.5	46.6	13.3	41.3	101.2
4341 Soil, Water, Air	7.2	16.1	15.6	38.9	7.2	16.1	12.1	35.4
4342 Hazardous Waste	0.0	0.4	0.2	0.6	0.0	0.4	0.2	0.6
4351 Habitat Management	13.3	8.2	55.1	76.6	17.7	11.0	120.1	148.8
4352 Endangered Species	7.3	4.5	3.3	15.1	7.3	4.5	3.3	15.1
4360 Fire Management	0.0	6.3	3.4	9.7	0.0	6.3	3.4	9.7
4410 Planning	15.1	27.7	10.2	53.0	16.2	27.0	10.3	53.5
4420 Data Management	0.0	0.0	0.2	0.2	0.0	0.0	0.2	0.2
4610 Presuppression	18.3	12.3	11.2	41.8	18.3	12.3	11.2	41.8
4620 Firefighting	2.9	8.6	17.1	28.6	2.5	7.3	14.5	24.3
4630 Fire Rehab.	0.0	0.2	0.1	0.3	0.0	0.2	0.1	0.3
4711 Building Maint.	4.6	2.6	41.2	48.4	4.8	2.4	41.2	48.4
4712 Recreation Maint.	6.0	8.1	29.8	43.9	6.0	8.1	29.8	43.9
4713 Transportation	1.4	6.0	43.3	50.7	1.4	6.0	43.3	50.7
4714 Engineering	0.0	3.0	3.0	6.0	0.0	2.9	3.0	5.9
4820 Equal Employment	0.0	1.3	0.5	1.8	0.0	1.3	0.5	1.8
4830 Support Services	6.9	32.2	18.0	57.1	7.1	29.8	17.0	53.9
8100 Range Improve.	0.0	34.3	30.4	64.7	0.0	114.1	104.5	218.6
9350 Quarters Maint.	4.9	0.0	0.8	5.7	4.9	0.0	0.0	4.9
TOTAL	462.0	352.8	507.9	1,322.7	498.0	519.1	643.5	1,660.6

TABLE AK-5

Comparison of Support Requirements Under Alternative E  
(in thousands of dollars)

Subactivity/Program	Alternative A				Alternative E			
	SJRA Labor Cost	MDO Labor Cost	Non- labor Cost	Total	SJRA Labor Cost	MDO Labor Cost	Non- labor Cost	Total
2300 Access	0.0	2.9	0.0	2.9	0.0	2.9	0.0	2.9
4111 Oil and Gas	87.5	79.6	66.4	233.5	87.9	79.9	66.4	234.2
4121 Coal	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4122 Tar Sand	0.1	0.1	0.1	0.3	0.1	0.1	0.1	0.3
4131 Mineral Materials	7.0	2.1	1.5	10.6	7.0	2.1	1.5	10.6
4132 Mining Law	8.8	2.0	2.3	13.1	15.4	3.5	10.0	28.9
4211 Rights-of-Way	23.4	7.1	5.0	35.5	28.1	8.6	6.0	42.7
4212 Lands	30.6	18.8	11.7	61.1	30.6	18.8	11.7	61.1
4220 Withdrawals	2.1	1.0	0.5	3.6	5.5	2.6	1.3	9.4
4311 Forest Management	9.6	1.4	7.4	18.4	9.6	1.4	7.4	18.4
4322 Grazing	87.4	38.1	41.6	167.1	91.6	44.7	54.0	190.3
4331 Cultural	93.7	21.1	71.2	186.0	114.7	25.8	87.9	228.4
4333 Recreation	23.9	6.8	16.8	47.5	48.1	13.7	50.3	112.1
4341 Soil, Water, Air	7.2	16.1	15.6	38.9	7.2	16.1	15.6	38.9
4342 Hazardous Waste	0.0	0.4	0.2	0.6	0.0	0.4	0.2	0.6
4351 Habitat Management	13.3	8.2	55.1	76.6	19.9	12.3	134.6	166.8
4352 Endangered Species	7.3	4.5	3.3	15.1	7.3	4.5	3.3	15.1
4360 Fire Management	0.0	6.3	3.4	9.7	0.0	6.3	3.4	9.7
4410 Planning	15.1	27.7	10.2	53.0	18.2	29.3	11.3	58.8
4420 Data Management	0.0	0.0	0.2	0.2	0.0	0.0	0.2	0.2
4610 Presuppression	18.3	12.3	11.2	41.8	18.3	12.3	11.2	41.8
4620 Firefighting	2.9	8.6	17.1	28.6	2.5	7.3	14.5	24.3
4630 Fire Rehab.	0.0	0.2	0.1	0.3	0.0	0.2	0.1	0.3
4711 Building Maint.	4.6	2.6	41.2	48.4	5.1	3.0	46.3	54.4
4712 Recreation Maint.	6.0	8.1	29.8	43.9	17.2	23.3	77.5	118.0
4713 Transportation	1.4	6.0	43.3	50.7	1.4	6.0	43.3	50.7
4714 Engineering	0.0	3.0	3.0	6.0	0.0	3.4	3.1	6.5
4820 Equal Employment	0.0	1.3	0.5	1.8	0.0	1.4	0.6	2.0
4830 Support Services	6.9	32.2	18.0	57.1	7.5	36.9	20.6	65.0
8100 Range Improve.	0.0	34.3	30.4	64.7	0.0	68.4	62.7	131.1
9350 Quarters Maint.	4.9	0.0	0.8	5.7	4.9	0.0	0.8	5.7
TOTAL	462.0	352.8	507.9	1,322.7	548.1	435.2	745.9	1,729.2

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## REVISIONS TO APPENDIX L - OIL AND GAS LEASING CATEGORIES

### Page Revision

- A-99 Column 1, Overview. At the end of paragraph 1 (ending "...that has been proposed."), insert "The four-category system will be used in the proposed RMP and final EIS."
- A-99 Column 2, at the end of paragraph 1 (ending "...and UT-83-70"), insert "and a memorandum from the State Director to the District Manager, Moab, dated November 25, 1986."
- A-99 Column 2, Revised Categories. Paragraph 1 (beginning "The BLM is in..."). Replace

### Page Revision

the first two sentences with "At the time the draft EIS was prepared, the BLM was in the process of changing the four-category system to a three-category system. After reviewing agency and public input on this proposal, the Washington Office has since decided to retain the four-category system. Because of the abbreviated format used in the final EIS, all references to the three-category system may not have been deleted. Therefore, the following explanation of the three-category system is retained for clarification of the intent of the draft EIS."



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## REVISIONS TO APPENDIX O - GRAZING ALLOTMENT SUMMARY

### Page Revision

A-112 Table AO-1, alphabetically insert allotment 6849 Cottonwood. Category: I; Noncritical acreage: 25,900; Critical acreage: 7,360 dw, Aq/Rip 9 miles; RO/BD 15; Early Seral 16; Mid Seral 60; Late Seral 9; Climax --; Number and Class, Season of Use: 183 cattle, 10/15-6/15; 405 deer, 11/1-4/30; 4 deer, yearlong; Active Preference: 1,434 AUMs; 5-Year Average Use: 1,080 AUMs; Total Nonuse: 0

A-112 Table AO-1, Allotment 6811, Cross Canyon. In column 3 (Noncritical Acreage) replace "24,830" with "30,640".

A-113 Table AO-1, Allotment 6815, East League. In column 3 (Noncritical Acreage) replace "16,090" with "14,600"; in column 4 replace "9 miles" with "7 miles"; in column 10 (Number and Class) replace "352" with "209" and delete "1 Deer" and "6 Deer"; in column 11 (Season of Use) delete the lines that represent seasons of use for deer; in column 12 (Active Preference) replace "2,463" with "1,359"; in column 13 (5-Year Average Use) replace "1,800" with "994".

A-113 Table AO-1, alphabetically insert allotment 6848 Horse Canyon. Category: M; Noncritical acreage: 2,440; Critical acreage: Aq/Rip 3 miles; RO/BD 4; Early Seral 21; Mid Seral 11; Late Seral 56; Climax 8; Number and Class, Season of Use: 85 cattle, 11/1-3/31; Active Preference: 425 AUMs; 5-Year Average Use: 310 AUMs; Total Nonuse: 0.

### Page Revision

A-115 Table AO-1, Allotment 4801, Lone Cedar. In column 3 (Noncritical Acreage) replace "16,590" with "7,905"; in column 4 (Critical Acreage) replace "1,400" with "10,560"; in column 10 (Number and Class) replace "296" with "393"; in column 12 (Active Preference) replace "1,483" with "1,966"; in column 13 (5-Year Average Use) replace "1,108" with "1,475".

A-117 Table AO-1, alphabetically insert allotment 6850, Shumway Point. Category: M; Noncritical acreage: 3,110; Critical acreage: --; RO/BD 7; Early Seral 27; Mid Seral 33; Late Seral 33; Climax 0. Number and Class, Season of Use: 136 Cattle, 11/1-3/31; 1 Deer, 11/1-4/31; 6 Deer yearlong; Active Preference: 679 AUMs; 5-Year Average Use: 496 AUMs; Total Nonuse: 0.

A-119 Table AO-1, Allotment 6831, Tank Bench-Brushy Basin. In column 3 (Noncritical Acreage) replace "83,820" with "57,900"; in column 4 (Critical Acreage) replace "10,100" with "2,760" and replace "41 miles" with "37 miles"; in column 10 (Number and Class) replace "697" with "507", replace "580" with "175", and replace "8" with "4"; in column 12 (Active Preference) replace "5,457" with "3,973"; in column 13 (5-Year Average Use) replace "4,072" with "2,992".

Page Revision

A-119 Table A0-1, Allotment 4802, Tank Draw. In column 3 (Noncritical Acreage) replace "3,720" with "4,395"; in column 4 (Critical Acreage) replace "5,410 af" with "4,250 dw af"; in column 10 (Number and Class) replace "426" with "329"; in column 12 (Active Preference) replace "2,130"

Page Revision

with "1,647"; in column 13 (5-Year Average Use) replace "1,705" with "1,318".

A-120 Table A0-1, Allotment 6837, White Canyon. In column 4 (Critical Acreage) below "90,210 dbs" insert "88,260 dw" and "Aq/Rip 20 miles".

## REVISIONS TO APPENDIX Q - ISOLATED TRACTS IDENTIFIED FOR DISPOSAL

### Page   Revision

- A-125 In the title, delete "Isolated".
- A-125 Column 1, Overview. Paragraph 1 (beginning "The purpose..."), line 4, delete "isolated". Last line, before "sites," insert "or historical"; after "sites," insert "presence of habitat used by threatened or endangered species (unless disposal would benefit the species),".
- A-125 Column 2, after paragraph 2 (beginning "E Tracts suitable..."), insert "F Tracts suitable for desert land entry (DLE patent) under the authority of the Act of March 3, 1877 as amended by the Act of March 3, 1891."
- A-125 Column 2, Alternative A. Paragraph 1 (beginning "All of the..."), line 6, after "Montezuma MFP" insert "and a pending DLE".
- A-126 Table AQ-1. In the title, delete "as Suitable". Before the first tract described, insert: Designation: C,D,E,F; Legal Description: T. 40 S., R.21 E., Sec. 27: S 1/2 SW 1/4; Geographic Area: near Bluff; Acreage: 80.00
- A-127 Table AQ-1, Total. Replace "2,877.21" with "2,957.21".
- A-128 Table AQ-2. In the title, delete "as Suitable".

### Page   Revision

- A-129 Table AQ-2. For each of the four tracts described under San Juan County Landfill, under Designation, after "C" insert ", D".
- A-130 Table AQ-3. In the title, delete "as Suitable". Before the first tract described, insert: Designation: C,D,E,F; Legal Description: T. 40 S., R.21 E., Sec. 27: S 1/2 SW 1/4; Geographic Area: near Bluff; Acreage: 80.00
- A-132 Table AQ-3. For each of the four tracts described under San Juan County Landfill, under Designation, after "C" insert ", D".
- Total. Replace "5,946.21" with "6,026.21".
- A-134 Table AQ-4. In the title, delete "as Suitable".
- A-136 Table AQ-5. In the title, delete "as Suitable". Before the first tract described, insert: Designation: C,D,E,F; Legal Description: T. 40 S., R.21 E., Sec. 27: S 1/2 SW 1/4; Geographic Area: near Bluff; Acreage: 80.00
- A-138 Table AQ-5. For each of the four tracts described under San Juan County Landfill, under Designation, after "C" insert ", D".
- Total. Replace "6,346.21" with "6,426.21".

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## REVISIONS TO APPENDIX T - ECOLOGICAL CONDITION OF GRAZING ALLOTMENTS

### OVERVIEW

The purpose of this appendix is to show changes to ecological condition of native range and livestock forage condition of seedings based on different methods and intensities of range management (table AT-1). It includes changes caused by such actions as land treatments, implementation of allotment management plans (AMPs), and changes in season of use, as presented under the different alternatives in chapter 2. The condition ratings in alternative E also represent the vegetation management objective for each allotment.

### ASSUMPTIONS

It was assumed that

- management of a grazing allotment under an AMP or elimination of spring grazing after

March 31 would improve ecological condition by 10 percent, if the allotment consisted primarily of desert or semidesert range sites;

- ecological condition would not change on allotments comprised primarily of upland range sites;
- absence of an AMP would cause a 5 percent decline in ecological condition on desert or semidesert range site allotments, but no change on upland range site allotments; and that
- either maintenance of existing land treatments or implementation of new ones would improve livestock forage condition.

TABLE AT-1

## Ecological Condition by Percentage of Allotment, by Alternative

Allotment, Ecological Condition Class, and Livestock Forage Condition	Alternative					
	Current	A	B	C	D	E
<b>ALKALI CANYON 6801</b>						
<u>Native</u>						
Climax	0	0	3	3	3	3
Late seral	28	27	26	28	28	28
Mid seral	26	26	13	25	26	26
Early seral	30	31	27	27	27	27
Rock outcrop/badlands	9	9	9	9	9	9
<u>Seeding</u>						
Excellent	7	4	19	5	2	4
Good	0	3	3	3	5	3
Fair	0	0	0	0	0	0
Poor	0	0	0	0	0	0
<b>ALKALI POINT 6802</b>						
<u>Native</u>						
Climax	0	0	0	0	0	0
Late seral	10	10	10	10	10	10
Mid seral	13	13	13	13	13	13
Early seral	53	53	40	41	52	41
Rock outcrop/badlands	6	6	6	6	6	6
<u>Seeding</u>						
Excellent	18	9	22	21	5	21
Good	0	9	9	9	14	9
Fair	0	0	0	0	0	0
Poor	0	0	0	0	0	0
<b>BEAR TRAP 4830</b>						
<u>Native</u>						
Climax	0	0	0	0	0	0
Late seral	0	0	0	0	0	0
Mid seral	100	100	100	100	100	100
Early seral	0	0	0	0	0	0
Rock outcrop/badlands	0	0	0	0	0	0
<u>Seeding<sup>b</sup></u>						
<b>BIG INDIAN 4826</b>						
<u>Native</u>						
Climax	0	0	0	0	0	0
Late seral	0	0	5	0	5	5
Mid seral	47	45	44	45	44	44
Early seral	24	26	18	22	22	18
Rock outcrop/badlands	29	29	29	29	29	29
<u>Seeding</u>						
Excellent	0	0	4	4	0	4
Good	0	0	0	0	0	0
Fair	0	0	0	0	0	0
Poor	0	0	0	0	0	0

TABLE AT-1 (Continued)

Allotment, Ecological Condition Class, and Livestock Forage Condition	Alternative					
	Current	A	B	C	D	E
BLACK STEER 6804						
Native						
Climax	0	0	1	0	1	1
Late seral	9	9	14	9	14	15
Mid seral	61	55	57	61	56	53
Early seral	15	20	13	14	14	15
Rock outcrop/badlands	15	16	15	16	15	16
Seeding <sup>b</sup>						
BLUE MOUNTAIN 6835						
Native						
Climax	0	0	0	0	0	0
Late seral	23	23	23	23	23	23
Mid seral	77	77	77	77	77	77
Early seral	0	0	0	0	0	0
Rock outcrop/badlands	0	0	0	0	0	0
Seeding <sup>b</sup>						
BLUFF BENCH 6803						
Native						
Climax	63	63	57	63	63	63
Late seral	0	0	6	0	0	0
Mid seral	16	16	14	16	16	16
Early seral	0	0	2	0	0	0
Rock outcrop/badlands	21	21	21	21	21	21
Seeding <sup>b</sup>						
BROWN CANYON 6805						
Native						
Climax	0	0	0	0	0	0
Late seral	0	0	0	0	0	0
Mid seral	30	30	30	30	30	30
Early seral	50	50	50	50	50	50
Rock outcrop/badlands	20	20	20	20	20	20
Seeding <sup>b</sup>						
BUG-SQUAW 6846						
Native						
Climax	3	2	3	3	3	3
Late seral	4	4	9	9	9	9
Mid seral	53	51	50	50	50	50
Early seral	21	24	19	19	19	19
Rock outcrop/badlands	7	7	7	7	7	7
Seeding						
Excellent	9	6	6	6	3	6
Good	0	6	6	6	9	6
Fair	3	0	0	0	0	0
Poor	0	0	0	0	0	0



TABLE AT-1 (Continued)

Allotment, Ecological Condition Class, and Livestock Forage Condition	Alternative					
	Current	A	B	C	D	E
<b>BULLDOG 6806</b>						
<u>Native</u>						
Climax	4	4	4	4	4	4
Late seral	0	0	0	0	0	0
Mid seral	81	77	77	77	77	77
Early seral	2	6	6	6	6	6
Rock outcrop/badlands	6	6	6	6	6	6
<u>Seeding</u>						
Excellent	0	4	4	4	4	4
Good	7	0	0	0	0	0
Fair	0	3	3	3	3	3
Poor	0	0	0	0	0	0
<b>CAVE CANYON 6808</b>						
<u>Native</u>						
Climax	0	0	4	4	4	4
Late seral	39	37	38	38	38	38
Mid seral	24	25	21	24	24	24
Early seral	26	27	23	23	23	23
Rock outcrop/badlands	11	11	11	11	11	11
<u>Seeding</u>						
Excellent	0	0	3	0	0	0
Good	0	0	0	0	0	0
Fair	0	0	0	0	0	0
Poor	0	0	0	0	0	0
<b>CHURCH ROCK 4827</b>						
<u>Native</u>						
Climax	0	0	0	0	0	0
Late seral	0	0	6	6	6	6
Mid seral	64	64	58	58	58	58
Early seral	0	0	0	0	0	0
Rock outcrop/badlands	36	36	36	36	36	36
<u>Seeding<sup>D</sup></u>						
<b>COMB WASH 6836</b>						
<u>Native</u>						
Climax	3	5	5	5	5	5
Late seral	20	22	22	22	22	22
Mid seral	44	39	31	40	41	40
Early seral	14	12	12	12	12	12
Rock outcrop/badlands	17	17	17	17	17	17
<u>Seeding</u>						
Excellent	0	3	11	2	0	2
Good	0	0	0	0	0	0
Fair	1	1	1	1	0	1
Poor	1	1	1	1	3	1

TABLE AT-1 (Continued)

Allotment, Ecological Condition Class, and Livestock Forage Condition	Alternative					
	Current	A	B	C	D	E
<b>CORRAL 6838</b>						
<u>Native</u>						
Climax	0	0	0	0	0	0
Late seral	23	23	23	23	23	23
Mid seral	77	77	77	77	77	77
Early seral	0	0	0	0	0	0
Rock outcrop/badlands	0	0	0	0	0	0
<u>Seeding<sup>b</sup></u>						
<b>COTTONWOOD 6849</b>						
<u>Native</u>						
Climax	0	0	1	1	1	1
Late seral	9	9	14	14	14	14
Mid seral	60	57	56	56	56	56
Early seral	16	19	14	14	14	14
Rock outcrop/badlands	15	15	15	15	15	15
<u>Seeding<sup>b</sup></u>						
<b>CROSS CANYON 6811</b>						
<u>Native</u>						
Climax	0	0	0	0	0	0
Late seral	6	6	6	6	11	6
Mid seral	56	56	30	55	53	57
Early seral	28	28	26	26	26	26
Rock outcrop/badlands	8	8	8	8	8	8
<u>Seeding</u>						
Excellent	0	1	29	4	0	2
Good	2	0	0	0	0	0
Fair	0	1	1	1	0	1
Poor	0	0	0	0	2	0
<b>DEVILS CANYON 6812</b>						
<u>Native</u>						
Climax	0	0	0	0	0	0
Late seral	0	0	0	0	0	0
Mid seral	28	27	27	27	27	27
Early seral	66	67	67	67	67	67
Rock outcrop/badlands	6	6	6	6	6	6
<u>Seeding<sup>b</sup></u>						
<b>DODGE CANYON 6813</b>						
<u>Native</u>						
Climax	0	0	0	0	0	0
Late seral	60	60	60	60	60	60
Mid seral	35	35	35	35	35	35
Early seral	0	0	0	0	0	0
Rock outcrop/badlands	5	5	5	5	5	5
<u>Seeding<sup>b</sup></u>						

TABLE AT-1 (Continued)

Allotment, Ecological Condition Class, and Livestock Forage Condition	Alternative					
	Current	A	B	C	D	E
DODGE POINT 6814						
Native						
Climax	0	0	0	0	0	0
Late seral	33	33	33	33	33	33
Mid seral	19	19	19	19	19	19
Early seral	41	41	41	41	41	41
Rock outcrop/badlands	7	7	7	7	7	7
Seeding <sup>b</sup>						
DRY FARM 4804						
Native						
Climax	0	0	0	0	0	0
Late seral	7	7	7	7	7	7
Mid seral	93	93	93	93	93	93
Early seral	0	0	0	0	0	0
Rock outcrop/badlands	0	0	0	0	0	0
Seeding <sup>b</sup>						
DRY VALLEY-DEER NECK 4820						
Native						
Climax	0	0	0	0	0	0
Late seral	0	0	4	4	4	4
Mid seral	42	40	43	43	43	43
Early seral	54	56	49	49	49	49
Rock outcrop/badlands	4	4	4	4	4	4
Seeding						
EAST CANYON 4814						
Native						
Climax	0	0	0	0	0	0
Late seral	0	0	5	0	5	5
Mid seral	52	49	49	49	51	51
Early seral	44	47	21	45	40	39
Rock outcrop/badlands	4	4	4	4	4	4
Seeding						
Excellent	0	0	21	2	0	1
Good	0	0	0	0	0	0
Fair	0	0	0	0	0	0
Poor	0	0	0	0	0	0
EAST LEAGUE 6815						
Native						
Climax	34	38	38	38	38	38
Late seral	36	34	34	34	34	34
Mid seral	12	11	11	11	11	11
Early seral	6	5	5	5	5	5
Rock outcrop/badlands	12	12	12	12	12	12
Seeding <sup>b</sup>						

TABLE AT-1 (Continued)

Allotment, Ecological Condition Class, and Livestock Forage Condition	Current	Alternative				
		A	B	C	D	E
EAST SUMMIT 4810						
Native						
Climax	5	5	5	a	a	a
Late seral	0	0	0			
Mid seral	95	95	95			
Early seral	0	0	0			
Rock outcrop/badlands	0	0	0			
Seeding <sup>b</sup>						
HARTS DRAW 4811						
Native						
Climax	2	2	3	3	3	3
Late seral	14	14	18	18	18	18
Mid seral	47	45	39	42	42	42
Early seral	4	6	4	4	4	4
Rock outcrop/badlands	30	30	30	30	30	30
Seeding						
Excellent	0	2	6	2	0	2
Good	2	0	0	0	0	0
Fair	1	0	0	0	0	0
Poor	0	1	1	1	3	1
HARTS POINT 4825						
Native						
Climax	0	0	0	0	0	0
Late seral	0	0	7	7	7	7
Mid seral	66	63	48	59	59	59
Early seral	0	3	0	0	0	0
Rock outcrop/badlands	34	34	34	34	34	34
Seeding <sup>b</sup>						
HORSE CANYON 6848						
Native						
Climax	8	8	8	8	8	8
Late seral	56	56	56	56	56	56
Mid seral	11	11	11	11	11	11
Early seral	21	21	21	21	21	21
Rock outcrop/badlands	4	4	4	4	4	4
Seeding <sup>b</sup>						
HORSEHEAD CANYON 6816						
Native						
Climax	1	1	1	1	1	1
Late seral	47	44	44	44	44	44
Mid seral	32	33	33	33	33	33
Early seral	14	16	16	16	16	16
Rock outcrop/badlands	6	6	6	6	6	6
Seeding <sup>b</sup>						

TABLE AT-1 (Continued)

Allotment, Ecological Condition Class, and Livestock Forage Condition	Alternative					
	Current	A	B	C	D	E
HURRAH PASS 4813						
Native						
Climax	8	8	10	10	10	10
Late seral	18	18	20	20	20	20
Mid seral	38	36	35	35	35	35
Early seral	6	8	5	5	5	5
Rock outcrop/badlands	30	30	30	30	30	30
Seeding <sup>b</sup>						
INDIAN CREEK 4815						
Native						
Climax	3	4	4	4	4	4
Late seral	11	14	14	14	14	14
Mid seral	39	36	36	36	36	36
Early seral	20	18	18	18	18	18
Rock outcrop/badlands	24	24	24	24	24	24
Seeding						
Excellent	2	2	2	2	0	2
Good	1	2	2	2	1	2
Fair	0	0	0	0	0	0
Poor	0	0	0	0	3	0
INDIAN ROCK 4822						
Native						
Climax	0	0	0	0	0	0
Late seral	2	2	0	2	2	2
Mid seral	18	17	0	17	17	17
Early seral	49	50	69	50	50	50
Rock outcrop/badlands	31	31	31	31	31	31
Seeding <sup>b</sup>						
JOHNSON CREEK 6818						
Native						
Climax	0	0	0	0	0	0
Late seral	0	0	0	0	0	0
Mid seral	86	86	86	86	86	86
Early seral	0	0	0	0	0	0
Rock outcrop/badlands	5	5	5	5	5	5
Seeding						
Excellent	0	0	0	0	0	0
Good	0	0	0	0	0	0
Fair	9	9	9	9	9	9
Poor	0	0	0	0	0	0

TABLE AT-1 (Continued)

Allotment, Ecological Condition Class, and Livestock Forage Condition	Alternative					
	Current	A	B	C	D	E
LAKE CANYON 6833						
<u>Native</u>						
Climax	11	13	13	13	13	13
Late seral	24	24	24	24	24	24
Mid seral	20	19	19	19	19	19
Early seral	7	6	4	6	6	6
Rock outcrop/badlands	38	38	38	38	38	38
<u>Seeding</u>						
Excellent	0	0	2	0	0	0
Good	0	0	0	0	0	0
Fair	0	0	0	0	0	0
Poor	0	0	0	0	0	0
LAWS 6839						
<u>Native</u>						
Climax	0	0	0	0	0	0
Late seral	0	0	0	0	0	0
Mid seral	29	29	29	29	29	29
Early seral	51	51	51	51	51	51
Rock outcrop/badlands	20	20	20	20	20	20
<u>Seeding<sup>b</sup></u>						
Excellent	1	1	1	1	1	1
Good	6	4	4	4	2	4
Fair	0	3	3	3	5	3
Poor	0	0	0	0	0	0
LITTLE BOULDER 6819						
<u>Native</u>						
Climax	5	5	5	5	5	5
Late seral	15	15	15	15	15	15
Mid seral	60	60	60	60	60	60
Early seral	6	6	6	6	6	6
Rock outcrop/badlands	7	7	7	7	7	7
<u>Seeding</u>						
Excellent	1	1	1	1	1	1
Good	6	4	4	4	2	4
Fair	0	3	3	3	5	3
Poor	0	0	0	0	0	0
LONE CEDAR 4801						
<u>Native</u>						
Climax	0	0	0	0	0	0
Late seral	0	0	5	7	7	7
Mid seral	67	64	44	60	60	60
Early seral	0	3	0	0	0	0
Rock outcrop/badlands	33	33	33	33	33	33
<u>Seeding</u>						
Excellent	0	0	18	0	0	0
Good	0	0	0	0	0	0
Fair	0	0	0	0	0	0
Poor	0	0	0	0	0	0

TABLE AT-1 (Continued)

Allotment, Ecological Condition Class, and Livestock Forage Condition	Alternative					
	Current	A	B	C	D	E
LONG CANYON 6820						
<u>Native</u>						
Climax	0	0	0	0	0	0
Late seral	33	33	33	33	33	33
Mid seral	21	21	21	21	21	21
Early seral	39	39	39	39	39	39
Rock outcrop/badlands	7	7	7	7	7	7
<u>Seeding<sup>b</sup></u>						
LYMAN 6821						
<u>Native</u>						
Climax	0	0	0	0	0	0
Late seral	22	22	22	22	22	22
Mid seral	0	0	0	0	0	0
Early seral	62	62	62	62	62	62
Rock outcrop/badlands	16	16	16	16	16	16
<u>Seeding<sup>b</sup></u>						
MAIL STATION 4819						
<u>Native</u>						
Climax	0	0	0	0	0	00
Late seral	0	0	9	9	9	9
Mid seral	89	85	80	80	80	80
Early seral	2	6	2	2	2	2
Rock outcrop/badlands	9	9	9	9	9	9
<u>Seeding<sup>b</sup></u>						
McCRACKEN 6822						
<u>Native</u>						
Climax	36	37	37	37	37	37
Late seral	12	12	12	12	12	12
Mid seral	14	13	13	13	13	13
Early seral	0	0	0	0	0	0
Rock outcrop/badlands	38	38	38	38	38	38
<u>Seeding<sup>b</sup></u>						
MONTEZUMA CANYON 6823						
<u>Native</u>						
Climax	2	2	3	3	3	3
Late seral	16	15	17	17	17	17
Mid seral	21	21	18	23	23	23
Early seral	40	41	36	36	36	36
Rock outcrop/badlands	11	11	11	11	11	11
<u>Seeding</u>						
Excellent	5	3	8	3	1	3
Good	2	4	4	4	5	4
Fair	3	2	2	2	2	2
Poor	0	1	1	1	2	1

TABLE AT-1 (Continued)

Allotment, Ecological Condition Class, and Livestock Forage Condition	Alternative					
	Current	A	B	C	D	E
<b>MONTICELLO COWBOY 4806</b>						
<u>Native</u>						
Climax	0	0	0	0	0	0
Late seral	0	0	8	0	0	8
Mid seral	81	77	74	77	77	74
Early seral	11	15	10	15	15	10
Rock outcrop/badlands	8	8	8	8	8	8
<u>Seeding<sup>b</sup></u>						
<b>MONUMENT 6825</b>						
<u>Native</u>						
Climax	3	3	5	5	5	5
Late seral	19	18	21	21	21	21
Mid seral	46	45	34	43	44	44
Early seral	16	18	14	14	14	14
Rock outcrop/badlands	7	7	7	7	7	7
<u>Seeding</u>						
Excellent	0	4	14	5	2	4
Good	5	0	0	0	0	0
Fair	4	3	3	3	4	3
Poor	0	2	2	2	3	2
<b>OWENS DUGOUT 6824</b>						
<u>Native</u>						
Climax	0	0	2	2	2	2
Late seral	20	19	24	24	24	24
Mid seral	55	53	49	49	49	49
Early seral	0	3	0	0	0	0
Rock outcrop/badlands	25	25	25	25	25	25
<u>Seeding<sup>b</sup></u>						
<b>PEARSON POINT 6845</b>						
<u>Native</u>						
Climax	0	0	0	0	0	0
Late seral	0	0	0	0	0	0
Mid seral	51	49	49	49	49	49
Early seral	9	11	11	11	11	11
Rock outcrop/badlands	6	6	6	6	6	6
<u>Seeding</u>						
Excellent	0	17	17	17	9	17
Good	34	0	0	0	0	0
Fair	0	17	17	17	25	17
Poor	0	0	0	0	0	0



TABLE AT-1 (Continued)

Allotment, Ecological Condition Class, and Livestock Forage Condition	Alternative					
	Current	A	B	C	D	E
PERKINS BROTHERS 6827						
<u>Native</u>						
Climax	17	16	22	22	22	22
Late seral	53	51	50	50	50	50
Mid seral	22	24	20	20	20	20
Early seral	1	2	1	1	1	1
Rock outcrop/badlands	7	7	7	7	7	7
<u>Seeding<sup>b</sup></u>						
PETERS CANYON 4807						
<u>Native</u>						
Climax	0	0	0	0	0	0
Late seral	0	0	0	0	0	0
Mid seral	100	95	95	95	95	95
Early seral	0	5	5	5	5	5
Rock outcrop/badlands	0	0	0	0	0	0
<u>Seeding<sup>b</sup></u>						
PETERS POINT 4805						
<u>Native</u>						
Climax	0	0	0	0	0	0
Late seral	0	0	0	0	0	0
Mid seral	6	6	6	6	6	6
Early seral	60	58	15	55	59	58
Rock outcrop/badlands	0	0	0	0	0	0
<u>Seeding</u>						
Excellent	17	19	62	22	9	19
Good	17	17	17	17	17	17
Fair	0	0	0	0	9	0
Poor	0	0	0	0	0	0
PIUTE KNOLL 6841						
<u>Native</u>						
Climax	0	a	0	a	a	a
Late seral	50		50			
Mid seral	50		50			
Early seral	0		0			
Rock outcrop/badlands	0		0			
<u>Seeding<sup>b</sup></u>						
ROGERS 6842						
<u>Native</u>						
Climax	0	0	0	0	0	0
Late seral	0	0	0	0	0	0
Mid seral	60	60	60	60	60	60
Early seral	30	30	30	30	30	30
Rock outcrop/badlands	10	10	10	10	10	10
<u>Seeding<sup>b</sup></u>						

TABLE AT-1 (Continued)

Allotment, Ecological Condition Class, and Livestock Forage Condition	Alternative					
	Current	A	B	C	D	E
ROUNDUP CORRAL 6847						
Native						
Climax	0	0	0	0	0	0
Late seral	23	23	23	23	23	23
Mid seral	77	77	77	77	77	77
Early seral	0	0	0	0	0	0
Rock outcrop/badlands	0	0	0	0	0	0
Seeding <sup>b</sup>						
SAGE FLAT 6724						
Native						
Climax	0	0	0	0	0	0
Late seral	0	0	0	0	0	0
Mid seral	100	100	100	100	100	100
Early seral	0	0	0	0	0	0
Rock outcrop/badlands	0	0	0	0	0	0
Seeding <sup>b</sup>						
SAGE GROUSE 6716						
Native						
Climax	0	0	a	0	a	a
Late seral	0	0		0		
Mid seral	100	100		100		
Early seral	0	0		0		
Rock outcrop/badlands	0	0		0		
Seeding <sup>b</sup>						
SHUMWAY POINT 6850						
Native						
Climax	0	0	0	0	0	0
Late seral	33	33	33	33	33	33
Mid seral	33	33	33	33	33	33
Early seral	27	27	27	27	27	27
Rock outcrop/badlands	7	7	7	7	7	7
Seeding <sup>b</sup>						
SLICKHORN 6834						
Native						
Climax	9	11	11	11	11	11
Late seral	21	22	22	22	22	22
Mid seral	31	30	18	30	31	29
Early seral	27	24	11	24	24	24
Rock outcrop/badlands	7	7	7	7	7	7
Seeding						
Excellent	1	3	28	3	0	4
Good	4	0	0	0	0	0
Fair	0	3	3	3	0	3
Poor	0	0	0	0	5	0

TABLE AT-1 (Continued)

Allotment, Ecological Condition Class, and Livestock Forage Condition	Alternative					
	Current	A	B	C	D	E
SOUTH CANYON 4824						
Native						
Climax	0	0	0	0	0	0
Late seral	3	3	3	3	3	3
Mid seral	97	92	92	92	92	92
Early seral	0	5	5	5	5	5
Rock outcrop/badlands	0	0	0	0	0	0
Seeding <sup>b</sup>						
SPRING CREEK 4823						
Native						
Climax	0	0	0	0	0	0
Late seral	0	0	0	0	0	0
Mid seral	81	76	23	71	76	74
Early seral	0	4	0	0	0	0
Rock outcrop/badlands	0	0	0	0	0	0
Seeding						
Excellent	8	10	63	15	5	12
Good	0	0	0	0	8	0
Fair	11	0	0	0	0	0
Poor	0	10	10	10	7	10
SPRING CREEK WEST 4812						
Native						
Climax	0	0	0	0	0	0
Late seral	0	0	0	0	0	0
Mid seral	100	95	25	88	95	95
Early seral	0	5	1	5	5	5
Rock outcrop/badlands	0	0	0	0	0	0
Seeding						
Excellent	0	0	74	7	0	0
Good	0	0	0	0	0	0
Fair	0	0	0	0	0	0
Poor	0	0	0	0	0	0
SQUAW CANYON 6828						
Native						
Climax	0	0	0	0	0	0
Late seral	0	0	6	0	0	6
Mid seral	60	57	56	57	57	56
Early seral	24	27	22	27	27	22
Rock outcrop/badlands	6	6	6	6	6	6
Seeding						
Excellent	0	5	5	5	0	5
Good	10	0	0	0	0	0
Fair	0	5	5	5	0	5
Poor	0	0	0	0	10	0

TABLE AT-1 (Continued)

Allotment, Ecological Condition Class, and Livestock Forage Condition	Alternative					
	Current	A	B	C	D	E
STATE LINE 4831						
Native						
Climax	0	0	0	0	0	0
Late seral	0	0	0	0	0	0
Mid seral	100	100	100	100	100	100
Early seral	0	0	0	0	0	0
Rock outcrop/badlands	0	0	0	0	0	0
Seeding <sup>b</sup>						
STEVENS 6830						
Native						
Climax	0	0	0	0	0	0
Late seral	0	0	0	0	0	0
Mid seral	0	0	0	0	0	0
Early seral	90	90	90	90	90	90
Rock outcrop/badlands	10	10	10	10	10	10
Seeding <sup>b</sup>						
SUMMIT CANYON 4818						
Native						
Climax	0	0	0	0	0	0
Late seral	0	0	0	0	0	0
Mid seral	100	100	100	100	100	100
Early seral	0	0	0	0	0	0
Rock outcrop/badlands	0	0	0	0	0	0
Seeding <sup>b</sup>						
TANK BENCH-BRUSHY BASIN 6831						
Native						
Climax	14	17	17	17	17	17
Late seral	23	23	23	23	23	23
Mid seral	32	30	25	30	30	30
Early seral	7	6	0	5	6	6
Rock outcrop/badlands	21	21	21	21	21	21
Seeding						
Excellent	1	2	13	3	2	2
Good	2	0	0	0	0	0
Fair	0	1	1	1	1	1
Poor	0	0	0	0	0	0
TANK DRAW 4802						
Native						
Climax	0	0	0	0	0	0
Late seral	0	0	8	8	8	8
Mid seral	83	79	76	76	76	76
Early seral	8	12	7	7	7	7
Rock outcrop/badlands	9	9	9	9	9	9
Seeding <sup>b</sup>						

TABLE AT-1 (Continued)

Allotment, Ecological Condition Class, and Livestock Forage Condition	Alternative					
	Current	A	B	C	D	E
TEXAS-MULEY 6844						
<u>Native</u>						
Climax	2	2	2	2	2	2
Late seral	0	0	6	6	6	6
Mid seral	64	61	32	59	60	59
Early seral	21	24	19	19	19	19
Rock outcrop/badlands	9	9	9	9	9	9
<u>Seeding</u>						
Excellent	2	2	30	3	1	3
Good	0	1	1	1	1	1
Fair	2	0	0	0	0	0
Poor	0	1	1	1	2	1
UPPER EAST CANYON 4817						
<u>Native</u>						
Climax	0	0	0	0	0	0
Late seral	0	0	0	0	0	0
Mid seral	100	100	100	100	100	100
Early seral	0	0	0	0	0	0
Rock outcrop/badlands	0	0	0	0	0	0
<u>Seeding<sup>b</sup></u>						
VEGA CREEK 4803						
<u>Native</u>						
Climax	0	0	0	0	0	0
Late seral	0	0	0	0	0	0
Mid seral	100	100	100	100	100	100
Early seral	0	0	0	0	0	0
Rock outcrop/badlands	0	0	0	0	0	0
<u>Seeding<sup>b</sup></u>						
VERDURE CREEK 6832						
<u>Native</u>						
Climax	0	0	0	0	0	0
Late seral	53	53	53	53	53	53
Mid seral	36	36	36	36	36	36
Early seral	3	3	3	3	3	3
Rock outcrop/badlands	8	8	8	8	8	8
<u>Seeding<sup>b</sup></u>						
WHITE CANYON 6837						
<u>Native</u>						
Climax	15	17	17	17	17	17
Late seral	30	30	30	30	30	30
Mid seral	33	30	23	30	30	30
Early seral	2	2	2	2	2	2
Rock outcrop/badlands	15	15	15	15	15	15

TABLE AT-1 (Concluded)

Allotment, Ecological Condition Class, and Livestock Forage Condition	Current	Alternative				
		A	B	C	D	E
WHITE CANYON 6837 (Concluded)						
Seeding						
Excellent	0	3	10	3	1	3
Good	3	0	0	0	0	0
Fair	2	2	2	2	2	2
Poor	0	1	1	1	3	1
WHITE MESA 6840						
Native						
Climax	3	5	5	5	5	5
Late seral	19	20	20	20	20	20
Mid seral	33	31	13	30	32	31
Early seral	28	25	25	25	25	25
Rock outcrop/badlands	11	11	11	11	11	11
Seeding						
Excellent	0	4	23	5	2	4
Good	1	0	0	0	0	0
Fair	6	1	1	1	1	1
Poor	0	3	3	3	4	3

<sup>a</sup>The entire allotment is to be disposed of in this alternative.

<sup>b</sup>This allotment has no seeding at present, and none is proposed under any of the alternatives.

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## REVISIONS TO APPENDIX U - MANAGEMENT ACTIONS, BY ALLOTMENT

### OVERVIEW

This appendix presents the management actions projected for each grazing allotment, by alternative. Its purpose is to provide a breakdown of management actions so that the effect (im-

pact) to each allotment can be determined. Changes to animal unit months (AUMs), acres of land treatments, and acres available for grazing are shown in table AU-1.



TABLE AU-1

## Grazing Management by Allotment, by Alternative

Allotment	5 Year Avg. AUMs	Future Alternative A AUMs	Future Alternative B AUMs	Future Alternative C AUMs	Future Alternative D AUMs	Future Alternative E AUMs
6801 ALKALI CANYON	1,349	1,349	2,830	1,390	1,349	1,349
Season of use		11/1-5/31	11/1-5/31	11/1-3/31	11/1-3/31	11/1-5/31
AMP		No	Yes	Yes	Yes	Yes
New land treatments		3,750 ac.	330 ac.			165 ac.
Alkali Ridge ACEC				23,910 ac.	23,910 ac.	6,520 ac.
6802 ALKALI POINT	282	282	465	395	282	395
Season of use		5/16-6/20	5/16-6/20	6/1-6/20	6/1-6/20	5/16-6/20
AMP		No	Yes	Yes	Yes	Yes
New land treatments			1,000 ac.	900 ac.		900 ac.
Alkali Ridge ACEC				6,790 ac.	6,790 ac.	6,790 ac.
4830 BEAR TRAP	102	102	130	102	102	102
Season of use		7/15-11/30	7/15-11/30	7/15-11/30	7/15-11/30	7/15-11/30
4826 BIG INDIAN	750	750	873	807	745	812
Season of use		12/5-5/25	12/5-5/25	12/5-5/25	12/5-5/25	12/5-5/25
AMP		No	Yes	No	Yes	Yes
New land treatments			500 ac.	500 ac.		500 ac.
Exclude grazing				riparian 70 ac.	riparian 70 ac.	
6804 BLACK STEER	314	285	537	285	314	285
/Season of use		12/1-4/30	12/1-4/30	12/1-4/30	12/30-4/30	12/1-4/30
AMP		No	Yes	No	Yes	Yes
Land disposal		320 ac.		320 ac.		320 ac.
6835 BLUE MOUNTAIN	20	20	30	20	20	20
Season of use		7/1-9/30	7/1-9/30	7/1-9/30	7/1-9/30	7/1-9/30

6803										
BLUFF BENCH	33		33	64	33		33		33	
Season of use		12/1-3/11		12/1-3/11		12/1-3/11		12/1-3/11		12/1-3/11
6805										
BROWN CANYON	61		61	61	61		61		61	
Season of use		11/16-3/15		11/16-3/15		11/16-3/15		11/16-3/15		11/16-3/15
Alkali Ridge ACEC						900 ac.		900 ac.		
6846										
BUG-SQUAW	991		991	1,305	848		931		991	
Season of use		1/1-5/20		1/1-5/20		1/1-5/20		1/1-5/20		1/1-5/20
AMP		No		Yes		Yes		Yes		Yes
Abandon treatments								160 ac.		
Alkali Ridge ACEC						8,510 ac.		8,510 ac.		
6806										
BULLDOG	316		316	359	272		302		307	
Season of use		10/1-12/31		10/1-12/31		10/1-12/31		10/1-12/31		10/1-12/31
		6/1-9/30		6/1-9/30		6/1-9/30		6/1-9/30		6/1-9/30
Exclude grazing						riparian		riparian		
Land disposal			40 ac.	360 ac.		50 ac.		50 ac.		400 ac.
Alkali Ridge ACEC						400 ac.		360 ac.		
						2,720 ac.		2,720 ac.		
6808										
CAVE CANYON	1,895		1,892	3,352	1,889		1,889		1,892	
Season of use		11/1-5/15		11/1-5/15		11/1-5/15		11/1-5/15		11/1-5/15
AMP		No		Yes		Yes		Yes		Yes
New land treatments				850 ac.						
Exclude grazing						riparian		riparian		
Land disposal			110 ac.	110 ac.		60 ac.		60 ac.		110 ac.
Alkali Ridge ACEC						110 ac.				
						29,410 ac.		29,410 ac.		8,230 ac.
4827										
CHURCH ROCK	34		34	60	33		33		34	
Season of use		12/1-5/31		12/1-3/31		12/1-3/31		12/1-3/31		12/1-3/31
Exclude grazing						riparian		riparian		
						10 ac.		10 ac.		

NOTE: Existing land treatments will be maintained under all alternatives unless stated to be abandoned.

KEY: ACEC = area of critical environmental concern; AMP = allotment management plan; NR = National Register; ONA = outstanding natural area; PA = primitive area; RNA = research natural area.

TABLE AU-1 (Continued)

Alotment	5 Year Avg. AUMs	Future Alternative A AUMs	Future Alternative B AUMs	Future Alternative C AUMs	Future Alternative D AUMs	Future Alternative E AUMs
6836						
COMB WASH	2,870	3,033	4,774	1,626	660	2,903
Season of use		10/16-5/31	10/16-5/31	10/16-5/31	10/16-5/31	10/16-5/31
AMP		Yes	Yes	Yes	Yes	Yes
New land treatments		1,300 ac.	6,500 ac.	400 ac.		290 ac.
Abandon treatments					1,600 ac.	
Exclude grazing				riparian 600 ac.	riparian 600 ac.	
Land disposal				120 ac.		120 ac.
Arch Canyon ONA				2,700 ac.	2,700 ac.	
Fish & Owl ONA				12,370 ac.	12,370 ac.	
Lime Canyon ONA				10,880 ac.	10,880 ac.	
Road Canyon ONA				12,200 ac.	12,200 ac.	
Grand Gulch SRMA		65,610 ac.	65,610 ac.	65,610 ac.	65,610 ac.	65,610 ac.
Hole-in-the-Rock Trail		790 ac.	790 ac.	790 ac.	790 ac.	790 ac.
Cedar Mesa ACEC					65,610 ac.	59,530 ac.
Scenic Highway Corridor ACEC					1,250 ac.	1,250 ac.
1-250 6838						
CORRAL	16	16	16	16	16	16
Season of use		5/20-7/19	5/20-7/19	5/20-7/19	5/20-7/19	5/20-7/19
6849						
COTTONWOOD	1,080	1,080	2,022	1,105	1,069	1,104
Season of use		10/16-6/10	10/16-6/10	10/16-6/10	10/16-6/10	10/16-6/10
Exclude grazing				riparian 110 ac.	riparian 110 ac.	
AMP			Yes	Yes	Yes	Yes
New land treatments			4,700 ac.	290 ac.		190 ac.
Butler Wash Archaeologic District		2,030 ac.	2,030 ac.	2,030 ac.	2,030 ac.	2,030 ac.
Scenic Highway Corridor ACEC					2,700 ac.	2,700 ac.
Grand Gulch SRMA		8,600 ac.	8,600 ac.	8,600 ac.	8,600 ac.	8,600 ac.
6811						
CROSS CANYON	2,289	2,289	4,688	2,368	2,261	2,343
Season of use		11/1-5/31	11/1-5/31	11/1-5/31	11/1-5/31	11/1-5/31
AMP			Yes	Yes	Yes	Yes
New land treatments			8,700 ac.	870 ac.		435 ac.
Abandon treatments					640 ac.	
Exclude grazing				riparian 75 ac.	riparian 75 ac.	

Alkali Ridge ACEC					16,210 ac.		16,210 ac.		
Hovenweep ACEC									1,500 ac.
Tin Cup Archaeologic District					2,610 ac.		2,610 ac.		2,610 ac.
6812									
DEVILS CANYON	195	195	212	195	195	195	195	195	
Season of use	6/1-9/30	6/1-9/30	6/1-9/30	6/1-9/30	6/1-9/30	6/1-9/30	6/1-9/30	6/1-9/30	
Exclude grazing					25 ac.	25 ac.	25 ac.	25 ac.	
Alkali Ridge ACEC					7,100 ac.	7,100 ac.	7,100 ac.	7,100 ac.	
6813									
DODGE CANYON	100	100	110	100	100	100	100	100	
Season of use	5/1-10/15	5/1-10/15	5/1-10/15	5/1-10/15	5/1-10/15	5/1-10/15	5/1-10/15	5/1-10/15	
6814									
DODGE POINT	13	13	13	13	13	13	13	13	
Season of use	6/1-10/31	6/1-10/31	6/1-10/31	6/1-10/31	6/1-10/31	6/1-10/31	6/1-10/31	6/1-10/31	
4804									
DRY FARM	34	34	34	34	34	34	34	34	
Season of use	5/1-5/30	5/1-5/30	5/1-5/30	5/1-5/30	5/1-5/30	5/1-5/30	5/1-5/30	5/1-5/30	
4820									
DRY VALLEY-									
DEER NECK	1,008	1,008	1,286	1,008	1,008	1,008	1,008	1,008	
Season of use	12/1-5/10	12/1-5/10	12/1-5/10	12/1-5/10	12/1-5/10	12/1-5/10	12/1-5/10	12/1-5/10	
AMP	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
4814									
EAST CANYON	1,045	1,045	1,316	1,047	1,047	1,034	1,034	1,051	
Season of use	12/1-4/15	12/1-4/15	12/1-4/15	12/1-4/15	12/1-4/15	12/1-4/15	12/1-4/15	12/1-4/15	
AMP	No	Yes	Yes	No	No	Yes	Yes	Yes	
New land treatments			1,000 ac.		100 ac.				50 ac.
Exclude grazing				riparian	110 ac.	riparian	110 ac.		
6815									
EAST LEAGUE	994	994	1,359	984	984	984	984	994	
Season of use	10/16-5/15	10/16-5/15	10/16-5/15	10/16-5/15	10/16-5/15	10/16-5/15	10/16-5/15	10/16-5/15	
AMP	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Exclude grazing				riparian	100 ac.	riparian	100 ac.		
San Juan River SRMA		450 ac.	450 ac.		450 ac.		450 ac.	450 ac.	

NOTE: Existing land treatments will be maintained under all alternatives unless stated to be abandoned.

KEY: ACEC = area of critical environmental concern; AMP = allotment management plan; NR = National Register; ONA = outstanding natural area; PA = primitive area; RNA = research natural area.

TABLE AU-1 (Continued)

Allotment	5 Year Avg. AUMs	Future Alternative A AUMs	Future Alternative B AUMs	Future Alternative C AUMs	Future Alternative D AUMs	Future Alternative E AUMs
4810						
EAST SUMMIT	25	25	33	17	17	17
Season of use		4/1-12/31	4/1-12/31	4/1-12/31	4/1-12/31	4/1-12/31
Land disposal		40 ac.		230 ac.	230 ac.	230 ac.
4811						
HARTS DRAW	2,359	2,359	2,898	1,549	1,344	2,371
Season of use		10/16-6/15	10/16-6/15	10/16-3/31	10/16-3/31	10/16-6/15
AMP		No	Yes	Yes	Yes	Yes
New land treatments			3,500 ac.	220 ac.		110 ac.
Abandon treatments					2,100 ac.	
Exclude grazing		riparian		riparian	360 ac.	
Land disposal		6 ac.				40 ac.
Indian Creek ACEC						5,760 ac.
Lockhart ACEC				42,660 ac.	42,660 ac.	
North Abajo ACEC				15,100 ac.	15,100 ac.	
Shay Canyon ACEC						1,250 ac.
Indian Creek SRMA				29,000 ac.	29,000 ac.	29,000 ac.
4825						
HARTS POINT	478	478	1,368	270	120	485
Season of use		3/1-5/31	3/1-5/31	3/1-3/31	3/1-3/31	3/1-5/31
AMP		No	Yes	Yes	Yes	Yes
New land treatments			2,300 ac.	10 ac.		55 ac.
North Abajo ACEC				3,840 ac.	3,840 ac.	
6848						
HORSE CANYON	310	310	425	310	310	310
Season of use		11/1-3/31	11/1-3/31	11/1-3/31	11/1-3/31	11/1-3/31
Exclude grazing				riparian	30 ac.	30 ac.
6816						
HORSEHEAD CANYON	83	83	144	83	83	83
Season of use		5/16-10/31	5/16-10/31	6/1-10/31	6/1-10/31	5/16-10/31

1-253

4813									
HURRAH PASS	246	246	262	105	228	246			
Season of use		11/25-3/31	11/25-3/31	11/25-3/31	11/25-3/31	11/25-3/31			
AMP		No	Yes	Yes	Yes	Yes			
Exclude grazing				riparian	180 ac.	riparian	180 ac.		
Lockhart ACEC					14,000 ac.		14,000 ac.		
4815									
INDIAN CREEK	5,171	5,171	8,518	2,682	1,392	5,171			
Season of use		10/16-6/15	10/16-6/15	10/16-6/15	10/16-6/15	10/16-6/15			
AMP		Yes	Yes	Yes	Yes	Yes			
Abandon treatments							6,640 ac.		
Exclude grazing				riparian	880 ac.	riparian	880 ac.		
Bridger Jack & Lavender			2,400 ac.		5,840 ac.		5,840 ac.		5,840 ac.
Beef Basin ACEC							72,880 ac.		
Bridger Jack Mesa ACEC			1,760 ac.		5,290 ac.		5,290 ac.		5,290 ac.
Butler Wash ACEC									13,870 ac.
Dark Canyon	PA	45,040		ONA	52,100 ac.	ONA	52,100 ac.	ACEC	46,040 ac.
Indian Creek ACEC									7,340 ac.
Lavender Mesa ACEC			640 ac.		640 ac.		640 ac.		640 ac.
North Abajo ACEC					40,240 ac.		40,240 ac.		
Shay Canyon ACEC									520 ac.
Beef Basin Archaeologic District					34,130 ac.		34,130 ac.		
Fable Valley Archaeologic District					5,030 ac.		5,030 ac.		5,030 ac.
Beef Basin SRMA					66,450 ac.		66,450 ac.		66,450 ac.
Indian Creek SRMA					51,000 ac.		51,000 ac.		51,000 ac.
4822									
INDIAN ROCK	217	217	895	214	214	217			
Season of use		11/15-5/15	11/15-3/31	11/15-3/31	11/15-3/31	11/15-3/31			
Exclude grazing				riparian	25 ac.	riparian	25 ac.		
6818									
JOHNSON CREEK	91	91	90	73	91	91			
Season of use		6/5-10/14	6/5-10/14	6/5-10/14	6/5-10/14	6/5-10/14			

NOTE: Existing land treatments will be maintained under all alternatives unless stated to be abandoned.

KEY: ACEC = area of critical environmental concern; AMP = allotment management plan; NR = National Register; ONA = outstanding natural area; PA = primitive area; RNA = research natural area.

TABLE AU-1 (Continued)

Allotment	5 Year Avg. AUMs	Future Alternative A AUMs	Future Alternative B AUMs	Future Alternative C AUMs	Future Alternative D AUMs	Future Alternative E AUMs
6833						
LAKE CANYON	4,777	4,827	6,270	2,296	1,234	4,821
Season of use		10/6-6/5	10/6-6/5	10/6-6/5	10/6-6/5	10/6-6/5
AMP		Yes	Yes	Yes	Yes	Yes
New land treatments		400 ac.	11,000 ac.	330 ac.		355 ac.
Exclude grazing						
Wingate Mesa		24,600 ac.		24,600 ac.		24,600 ac.
Grand Gulch		11,200 ac.		11,200 ac.	4,240 ac.	11,200 ac.
Grand Gulch				riparian	riparian	
Grand Gulch	PA	21,600 ac.		ONA	ONA	
Grand Gulch ACEC				620 ac.	620 ac.	
Grand Gulch SRMA		66,000 ac.	66,000 ac.	32,200 ac.	32,200 ac.	17,970 ac.
Cedar Mesa Archaeologic District				4,240 ac.	4,240 ac.	66,000 ac.
Hole-in-the-Rock Trail		66,000 ac.		66,000 ac.	66,000 ac.	66,000 ac.
Cedar Mesa ACEC		3,730 ac.	3,730 ac.	68,130 ac.	68,130 ac.	68,130 ac.
Moki-Red Canyon ACEC				3,730 ac.	3,730 ac.	3,730 ac.
Nokai Dome ACEC					90,850 ac.	
Scenic Highway Corridor ACEC					138,210 ac.	63,340 ac.
White Canyon ACEC					90,850 ac.	
					21,290 ac.	21,290 ac.
					13,900 ac.	
6839						
LAWS	5	5	5	5	5	5
Season of use		9/1-3/31	9/1-3/31	9/1-3/31	9/1-3/31	9/1-3/31
Alkali Ridge ACEC				200 ac.	200 ac.	
6819						
LITTLE BOULDER	280	280	280	280	280	280
Season of use		4/1-11/30	4/1-11/30	4/1-11/30	4/1-11/30	4/1-11/30
Montezuma Creek SRMA				1,920 ac.	1,920 ac.	
4801						
LONE CEDAR	1,108	1,108	1,758	738	791	1,123
Season of use		12/1-4/30	12/1-4/30	12/1-4/30	12/1-4/30	12/1-4/30
AMP		No	Yes	Yes	Yes	Yes
New land treatments			2,200 ac.			80 ac.
North Abajo ACEC				6,270 ac.	6,270 ac.	

6820									
LONG CANYON	116	116	140	116	116	116	116	116	
Season of use		5/15-10/15	5/15-10/15	5/15-10/15	5/15-10/15	5/15-10/15	5/15-10/15	5/15-10/15	
Alkali Ridge ACEC					300 ac.		300 ac.		
6821									
LYMAN	6	6	6	6	6	6	6	6	
Season of use		3/1-2/28	3/1-2/28	3/1-2/28	3/1-2/28	3/1-2/28	3/1-2/28	3/1-2/28	
4819									
MAIL STATION	1,187	1,187	1,446	1,187	1,187	1,187	1,187	1,187	
Season of use		11/1-4/30	11/1-4/30	11/1-4/30	11/1-4/30	11/1-4/30	11/1-4/30	11/1-4/30	
AMP		No	Yes	Yes	Yes	Yes	Yes	Yes	
6822									
McCRACKEN	602	602	950	584	584	584	584	602	
Season of use		1/1-5/15	1/1-5/15	1/1-5/15	1/1-5/15	1/1-5/15	1/1-5/15	1/1-5/15	
AMP		Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Exclude grazing				riparian	180 ac.	riparian	180 ac.		
San Juan River SRMA		2,420 ac.	2,420 ac.		2,420 ac.		2,420 ac.	2,420 ac.	
6823									
MONTEZUMA	1,581	1,581	2,075	1,573	1,559	1,559	1,559	1,581	
Season of use		11/1-5/31	11/1-3/31	11/1-3/31	11/1-3/31	11/1-3/31	11/1-3/31	11/1-5/31	
AMP		No	Yes	Yes	Yes	Yes	Yes	Yes	
New land treatments			1,400 ac.		110 ac.			55 ac.	
Exclude grazing				riparian	220 ac.	riparian	220 ac.		
Alkali Ridge ACEC					26,810 ac.		26,810 ac.	7,250 ac.	
Montezuma Creek SRMA					2,900 ac.		2,900 ac.		
Three Kiva NR eligible		1 ac.	1 ac.		1 ac.		1 ac.	1 ac.	
4806									
MONTICELLO COWBOY	618	618	814	610	610	610	610	618	
Season of use		11/16-4/30	11/16-4/30	11/16-4/30	11/16-4/30	11/16-4/30	11/16-4/30	11/16-4/30	
AMP		No	Yes	No	No	No	No	Yes	
Exclude grazing				riparian	80 ac.	riparian	80 ac.		

NOTE: Existing land treatments will be maintained under all alternatives unless stated to be abandoned.

KEY: ACEC = area of critical environmental concern; AMP = allotment management plan; NR = National Register; ONA = outstanding natural area; PA = primitive area; RNA = research natural area.



TABLE AU-1 (Continued)

Allotment	5 Year Avg. AUMs	Future Alternative A AUMs	Future Alternative B AUMs	Future Alternative C AUMs	Future Alternative D AUMs	Future Alternative E AUMs
6825 MONUMENT CANYON	434	424	1,553	430	394	445
Season of use		12/5-5/31	12/5-5/31	12/5-3/31	12/5-3/31	12/5-5/31
AMP		No	Yes	Yes	Yes	Yes
New land treatments			3,300 ac.			165 ac.
Exclude grazing				riparian	riparian	
Land disposal		320 ac.	320 ac.		360 ac.	320 ac.
Alkali Ridge ACEC				24,030 ac.	24,030 ac.	
6824 OWENS DUGOUT	265	265	275	265	265	265
Season of use		11/25-5/20	11/25-3/31	11/25-3/31	11/25-3/31	11/25-3/31
6845 PEARSON POINT	100	100	125	100	100	100
Season of use		3/1-12/31	3/1-12/31	6/1-12/31	6/1-12/31	3/1-12/31
6827 PERKINS BROS.	3,411	3,411	7,592	2,282	936	3,411
Season of use		11/1-5/31	11/1-5/31	11/1-5/31	11/1-5/31	11/1-5/31
AMP		No	Yes	Yes	Yes	Yes
New land treatments			100 ac.			
Exclude grazing				riparian	riparian	
San Juan River SRMA		12,230 ac.	12,230 ac.	12,230 ac.	12,230 ac.	12,230 ac.
Grand Gulch SRMA		47,380 ac.	47,380 ac.	47,380 ac.	47,380 ac.	47,380 ac.
Cedar Mesa Archaeologic District				40,450 ac.	40,450 ac.	40,450 ac.
Johns Canyon ONA				700 ac.	700 ac.	
Lime Canyon ONA				1,940 ac.	1,940 ac.	
Hole-in-the-Rock Trail		860 ac.	860 ac.	860 ac.	860 ac.	860 ac.
Sand Island		1 ac.	1 ac.	1 ac.	1 ac.	1 ac.
River House NR eligible		1 ac.	1 ac.	1 ac.	1 ac.	1 ac.
Cedar Mesa ACEC					350 ac.	350 ac.
Scenic Highway Corridor ACEC					3,800 ac.	3,800 ac.
Valley of the Gods ACEC					38,360 ac.	
4807 PETERS CANYON	90	50	90	50	50	50
Season of use		11/16-5/15	11/16-3/31	11/16-3/31	11/16-3/31	11/16-3/31
Exclude grazing				riparian	riparian	

4805										
PETERS POINT	35		144		405		150		135	146
Season of use		5/1-10/31		5/1-10/31		5/1-10/31		5/1-10/31		5/1-10/31
AMP		Yes		Yes		Yes		Yes		Yes
New land treatments			70 ac.		1,800 ac.		120 ac.			90 ac.
6841										
PIUTE KNOLL	25		0		30		0		0	0
Season of use				5/1-10/31						
Land disposal			160 ac.				160 ac.		160 ac.	160 ac.
6842										
ROGERS	0		0		7		0		0	0
Season of use		1/1-4/30		1/1-4/30		1/1-4/30		1/1-4/30		1/1-4/30
6847										
ROUNDUP CORRAL	4		4		8		4		4	4
Season of use		6/30-7/1, 9/30-10/1		6/30-7/1, 9/30-10/1		6/30-7/1, 9/30-10/1		6/30-7/1, 9/30-10/1		6/30-7/1, 9/30-10/1
1-257 6724										
SAGE FLAT	13		13		13		13		13	13
Season of use		6/1-6/30		6/1-6/30		6/1-6/30		6/1-6/30		6/1-6/30
6716										
SAGE GROUSE	7		7		0		7		0	0
Season of use		5/1-5/31			5/1-5/31				5/1-5/31	
Land disposal					320 ac.				320 ac.	320 ac.
6850										
SHUMWAY POINT	496		496		679		496		496	496
Season of use		11/1-3/31		11/1-3/31		11/1-3/31		11/1-3/31		11/1-3/31
Alkali Ridge ACEC							4,260 ac.		4,260 ac.	

NOTE: Existing land treatments will be maintained under all alternatives unless stated to be abandoned.

KEY: ACEC = area of critical environmental concern; AMP = allotment management plan; NR = National Register; ONA = outstanding natural area; PA = primitive area; RNA = research natural area.

TABLE AU-1 (Continued)

Allotment	5 Year Avg. AUMs	Future Alternative A AUMs	Future Alternative B AUMs	Future Alternative C AUMs	Future Alternative D AUMs	Future Alternative E AUMs
6834						
SLICKHORN	1,716	1,716	6,045	1,177	430	1,927
Season of use		10/16-6/15	10/16-6/15	10/16-6/15	10/16-6/15	10/16-6/15
AMP		Yes	Yes	Yes	Yes	Yes
New land treatments			34,000 ac.	950 ac.		1,685 ac.
Abandon treatments					7,190 ac.	
Exclude grazing				riparian 200 ac.	riparian 200 ac.	
Hole-in-the-Rock Trail		730 ac.	730 ac.	730 ac.	730 ac.	730 ac.
Grand Gulch SRMA		127,210 ac.	127,210 ac.	127,210 ac.	127,210 ac.	127,210 ac.
Grand Gulch	PA	16,210 ac.		ONA 37,300 ac.	ONA 37,300 ac.	ACEC 31,160 ac.
Cedar Mesa Archaeologic District				127,210 ac.	127,210 ac.	127,210 ac.
Slickhorn ONA				25,800 ac.	25,800 ac.	
Johns Canyon ONA				13,600 ac.	13,600 ac.	
Fish & Owl ONA				27,930 ac.	27,930 ac.	
Road Canyon ONA				1,200 ac.	1,200 ac.	
Cedar Mesa ACEC					8,690 ac.	8,690 ac.
Scenic Highway Corridor ACEC					132,810 ac.	132,810 ac.
4824						
SOUTH CANYON	109	109	117	109	109	109
Season of use		5/16-11/30	5/16-11/30	5/16-11/30	5/16-11/30	5/16-11/30
4823						
SPRING CREEK	90	90	291	102	90	96
Season of use		5/1-10/31	5/1-10/31	5/1-10/31	5/1-10/31	5/1-10/31
New land treatments			950 ac.	95 ac.		45 ac.
4812						
SPRING CREEK WEST	152	152	277	165	152	158
Season of use		6/16-10/15	6/16-10/15	6/16-10/15	6/16-10/15	6/16-10/15
New land treatments			1,000 ac.	100 ac.		
6828						
SQUAW CANYON	74	74	789	54	29	74
Season of use		11/1-5/15	11/1-5/15	11/1-5/15	11/1-5/15	11/1-5/15
AMP			Yes			Yes
Abandon treatments					660 ac.	
4831						
STATE LINE	16	16	16	16	16	16
Season of use		11/25-2/28	11/25-2/28	11/25-2/28	11/25-2/28	11/25-2/28

6830											
STEVENS	43	43	60	43	43	43	43	43			
Season of use	3/1-2/28	3/1-2/28	3/1-2/28	3/1-2/28	3/1-2/28	3/1-2/28	3/1-2/28	3/1-2/28			
Alkali Ridge ACEC					520 ac.		520 ac.				
4818											
SUMMIT CANYON	40	40	40	40	40	40	40	40			
Season of use	7/1-8/31	7/1-8/31	7/1-8/31	7/1-8/31	7/1-8/31	7/1-8/31	7/1-8/31	7/1-8/31			
6831											
TANK BENCH	2,992	3,011	4,311	2,227	2,947	3,008					
Season of use	10/16-6/10	10/16-6/10	10/16-6/10	10/16-6/10	10/16-6/10	10/16-6/10	10/16-6/10	10/16-6/10			
AMP	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes			
New land treatments	150 ac.	2,700 ac.	270 ac.								
Exclude grazing			riparian	450 ac.	riparian	450 ac.					
Grand Gulch SRMA	5,900 ac.	5,900 ac.	5,900 ac.								
Scenic Highway Corridor ACEC					5,900 ac.	2,170 ac.					
4802											
TANK DRAW	1,705	1,705	2,268	1,705	1,705	1,710					
Season of use	12/1-4/30	12/1-4/30	12/1-4/30	12/1-3/31	12/1-3/31	12/1-4/30					
AMP		Yes	Yes	Yes	Yes	Yes					
New land treatments			1,100 ac.			40 ac.					
6844											
TEXAS-MULEY	1,504	1,504	4,170	1,034	367	1,620					
Season of use	11/15-5/31	11/15-5/31	11/15-5/31	11/15-5/31	11/15-5/31	11/15-5/31					
AMP	No	Yes	Yes	Yes	Yes	Yes					
New land treatments			19,000 ac.	420 ac.		930 ac.					
Abandon treatments											
Exclude grazing				riparian	80 ac.	riparian	1,360 ac.				
Cedar Mesa Archaeologic District					80 ac.		80 ac.				
Grand Gulch SRMA					66,600 ac.		66,600 ac.				
Johns Canyon ONA					66,600 ac.		66,600 ac.				
Mule Canyon ONA					3,200 ac.		3,200 ac.				
Arch Canyon ONA					6,000 ac.		6,000 ac.				
Road Canyon ONA					1,500 ac.		1,500 ac.				
Lime Canyon ONA					11,100 ac.		11,100 ac.				
Mule Canyon NR Eligible					12,480 ac.		12,480 ac.				
Cedar Mesa ACEC					1 ac.		1 ac.				
Scenic Highway Corridor ACEC											

NOTE: Existing land treatments will be maintained under all alternatives unless stated to be abandoned.

KEY: ACEC = area of critical environmental concern; AMP = allotment management plan; NR = National Register; ONA = outstanding natural area; PA = primitive area; RNA = research natural area.

TABLE AU-1 (Continued)

Alotment	5 Year Avg. AUMs	Future Alternative A AUMs	Future Alternative B AUMs	Future Alternative C AUMs	Future Alternative D AUMs	Future Alternative E AUMs
4817 UPPER EAST CANYON	18	15	15	15	15	15
Season of use		5/1-10/31	5/1-10/31	5/1-10/31	5/1-10/31	5/1-10/31
Land disposal		120 ac.	120 ac.	120 ac.	120 ac.	120 ac.
4803 VEGA CREEK	69	69	80	69	69	69
Season of use		10/1-10/31	10/1-10/31	10/1-10/31	10/1-10/31	10/1-10/31
6832 VERDURE CREEK	103	103	118	103	103	103
Season of use		3/1-2/28	3/1-2/18	6/1-3/31	6/1-3/31	3/1-2/28
Montezuma Creek SRMA				480 ac.	480 ac.	
6837 WHITE CANYON	3,572	5,166	8,076	2,616	2,864	4,981
Season of use		3/1-2/28	3/1-2/28	3/1-2/28	3/1-2/28	3/1-2/28
AMP		Yes	Yes	Yes	Yes	Yes
New land treatments		50 ac.	16,000 ac.	120 ac.		820 ac.
Abandon treatments					6,737 ac.	
Exclude grazing				32,140 ac.		56,740 ac.
Land disposal			25 ac.	25 ac.	25 ac.	25 ac.
Dark Canyon	PA	16,000 ac.	SRMA 16,000 ac.	ONA 16,000 ac.	ONA 16,000 ac.	ACEC 16,000 ac.
Scenic Highway Corridor ACEC					9,790 ac.	31,460 ac.
White Canyon ACEC					161,910 ac.	

6840									
WHITE MESA	2,741	2,776	5,781	2,773	2,723	2,805			
Season of use	12/1-5/31	12/1-5/31	12/1-5/31	12/1-5/31	12/1-5/31	12/1-5/31			
AMP	Yes	Yes	Yes	Yes	Yes	Yes			
New land treatments	280 ac.	10,000 ac.	1,020 ac.			510 ac.			
Exclude grazing			riparian	180 ac.	riparian	180 ac.			
Scenic Highway Corridor ACEC						1,300 ac.			1,300 ac.
Grand Gulch SRMA	2,600 ac.	2,600 ac.	2,600 ac.		2,600 ac.	2,600 ac.			2,600 ac.

NOTE: Existing land treatments will be maintained under all alternatives unless stated to be abandoned.

KEY: ACEC = area of critical environmental concern; AMP = allotment management plan; NR = National Register; ONA = outstanding natural area; PA = primitive area; RNA = research natural area.

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## REVISIONS TO APPENDIX W - VEGETATION IMPACT ANALYSIS ASSUMPTIONS

<u>Page</u>	<u>Revision</u>
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A-190	Table AW-5, column 2, ( <u>Acres Temporary Disturbance</u> ), left of "New land treatments
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(seedings)", replace "6,300" with "6,090". <u>Total.</u> Replace "44,800" with "44,590".
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## REVISIONS TO APPENDIX Y - CULTURAL RESOURCE IMPACT ANALYSIS ASSUMPTIONS

<u>Page</u>	<u>Revision</u>
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A-196	Column 1, paragraph 1 (beginning "The number of acres ..."), line 8, delete "(to avoid double counting from multiple impacts, as explained above)".
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<u>Page</u>	<u>Revision</u>
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A-196	Column 2, paragraph 1 (beginning "The number of sites ..."), line 7, replace "areas excluded from livestock use, and research natural areas." with "and areas excluded from livestock use."
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## REVISIONS TO THE GLOSSARY

### Page Revision

- B-1 Column 2, alphabetically insert "Anti-degradation requirements. No water quality degradation is allowable that would interfere with or become injurious to existing instream water uses (40 CFR 131.12). Established standards for the designated uses outlined in Part II of the Wastewater Disposal Regulations for the stream segments listed in appendix B of those regulations must be maintained."
- B-2 Column 2, alphabetically insert "Candidate species. Species not yet officially listed but which are undergoing a status review or are proposed for listing according to Federal Register notices published by the Secretary of the Interior."
- B-3 Column 1, alphabetically insert "Conservation of cultural resources. A revised term for conservation for future use in cultural resource management. See Conservation for Future Use."
- B-4 Column 1, alphabetically insert "Deferred rotation grazing. Discontinuance of grazing on various parts of rangeland in succeeding years, allowing each part to rest successively to permit seed production, establishment of seedlings, or restoration of plant vigor. Two, but usually three or more, separate units are required. Control is usually ensured by unit fencing."
- B-4 Column 2, alphabetically insert "Ecological site. A distinctive kind of rangeland that differs from other kinds of rangeland in its ability to produce a characteristic natural plant community. An ecological

### Page Revision

- site is the product of all the environmental factors responsible for its development. It is capable of supporting a native plant community typified by an association of species that differs from that of other ecological sites in the kind or proportion of species or in total production."
- B-4 Column 2, revise the definition of Endangered species to read "Any species which is in danger of extinction throughout all or a significant portion of its range, other than a species of the class Insecta determined by the Secretary to constitute a pest whose protection under the provisions of the Endangered Species Act would present an overwhelming and overriding risk to man."
- B-6 Column 1, revise the definition of Income to read "The sum of wage and salary disbursements, other labor income, net income of owners of unincorporated enterprises, property income, and transfer payments."
- B-6 Column 2, alphabetically insert "Informational potential. A cultural resource management category that combines the former current scientific use and future scientific use categories. See Current Scientific Use and Future Scientific Use."
- B-7 Column 1, revise the definition of Isolated Tract to read "A parcel of public lands surrounded by non-federal lands."
- B-7 Column 1, alphabetically insert "Leasable minerals. Mineral commodities that are disposed of under the Mineral Leasing Act

Page Revision

of 1920. Examples are oil, gas, potash, coal, phosphate, and tar sand."

- B-7 Column 2, alphabetically insert "Livestock forage condition". A classification of forage based on the percent by weight of desirable forage for livestock in the composition. It is expressed in four classes: excellent, good, fair, and poor."
- B-7 Column 2, alphabetically insert "Locatable minerals". Mineral commodities that can be claimed under the authority of the Mining Law of 1872. Examples are gold, zinc, copper, and uranium."
- B-8 Column 2, alphabetically insert "Notice". A document submitted for mining or mining exploration where 5 acres or less will be disturbed."
- B-8 Column 2, revise the definition of Notice of Intent to read "A notice submitted to BLM by a geophysical exploration company outlining a proposed oil and gas exploration program."
- B-9 Column 2, revise the definition of Plan of operations to read "As used in this EIS, a plan submitted by an operator which outlines in detail exploration and mining proposals that will disturb more than 5 acres."
- B-10 Column 1, alphabetically insert "Prime and Unique Farmlands". Prime farmland is land which has the best combination of physical and chemical characteristics for producing food, feed, fiber, or other crops, and which is available for these uses (not built-up urban land or water). Prime farmland has the soil quality, moisture content, growing season, and an adequate water supply to economically produce high yields of crops, when properly managed. Unique farmlands are those of statewide and local importance for producing crops."

Page Revision

- B-10 Column 2, alphabetically insert "Public values of cultural resources". A cultural resource management category that combines the former management use, socio-cultural use, public use and discharged use categories. See Management Use, Socio-cultural Use, Public Use, and Discharged Use."
- B-10 Column 2, alphabetically insert "Range site". A distinctive kind of rangeland that differs from other kinds of rangeland in its potential to produce a characteristic natural plant community."
- B-11 Column 1, revise the definition of Right-of-way to read "The legal right for use, occupancy, or access across land or water areas for a specified purpose or purposes. Also, the lands covered by such a right."
- B-11 Column 1, alphabetically insert "Riparian area". An area of land directly influenced by permanent water, which has visible vegetation or physical characteristics reflective of permanent water influence. Riparian area-dependent resources are those such as water, vegetation, or wildlife habitat that owe their existence to the riparian area."
- B-11 Column 1, revise the definition of Riparian habitat to read "Wildlife habitat which is dependent on the presence of a riparian area (see Riparian area)."
- B-11 Column 1, alphabetically insert "Salable minerals". Commodities that are disposed of by authority of the Material Sales Act of 1947. Examples are sand, gravel, building stone, clay, and fill material."
- B-11 Column 1, alphabetically insert "Satisfactory range condition". The status of an area where the present ecological condition meets management objectives."

Page Revision

- B-11 Column 2, delete the terms "Sensitive animal species" and "Sensitive plant species" and replace with "Sensitive species. See Candidate species."
- B-12 Column 2, revise the definition of Threatened species to read "Any species which is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range."

Page Revision

- B-13 Column 1, alphabetically insert "Unsatisfactory range condition. The status of an area where present ecological condition does not meet management objectives."
- B-14 Column 1, revise the definition of Withdrawal to read "An action that restricts the use of public lands and removes the land from operation of some or all of the public land or mineral laws."

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## REVISIONS TO THE ACRONYMS AND ABBREVIATIONS

<u>Page</u>	<u>Revision</u>
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B-15	Column 1, Before "DOE..." insert "DLE Desert Land Entry"
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<u>Page</u>	<u>Revision</u>
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B-15	Column 2, before "ONA..." insert "NRI Nationwide Rivers Inventory"
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## APPENDIX AA - ANALYSIS OF PUBLIC COMMENTS ON THE DRAFT GRAND GULCH PLATEAU MANAGEMENT PLAN

### OVERVIEW

This appendix provides a synopsis of public comments received on the Draft Grand Gulch Plateau Management Plan. The draft plan was prepared by the BLM's Moab District office in 1980 and was put out for public review and comment. The draft plan was never finalized. Instead, managers decided to wait for completion of this RMP before deciding on a management direction for the area.

In response to public comments and inquiry received on the Draft San Juan Resource Management Plan and Environmental Impact Statement (RMP/EIS), the following comment analysis is included as an appendix to this proposed RMP and final EIS. This analysis was prepared as a staff report by the Moab District in 1981 and is reprinted here in its entirety. No attempt has been made to alter the content of the report for the purpose of relating it to proposals made through this EIS process.

#### OVERVIEW OF PUBLIC COMMENT RECEIVED

##### DRAFT GRAND GULCH PLATEAU MANAGEMENT PLAN

Moab District Office

January 9, 1981

The Draft Grand Gulch Plateau Management Plan public comment period ended January 1, 1981. Beyond verbal comments given at the three public meetings, the San Juan Resource Area office received a total of 155 written comments, as follows:

- 2 Federal Government agencies
- 3 State Government agencies
- 2 Local Government agencies

- 6 Universities/Schools
- 11 Groups (all environmental groups)
- 8 Industry (1 tourist oriented, remainder oil and gas)
- 123 Individuals

Of the individual comments, 8 expressed strong to limited opposition to the Plan; 2 gave comments but no opinion; all others expressed strong to limited support.

All industry comments opposed the plan because it was felt to be too strongly slanted toward preservation ("de facto wilderness") at the expense of multiple use/energy exploration. Environmental groups expressed guarded support or offered comments with no opinion. They generally felt that cultural and natural resource values should be preserved at all costs and that development of the area should be limited ("no multiple use"). The lack of producing oil and gas reserves was noted. It was felt DOE drilling/nuclear waste programs should be denied. University responses were generally concerned specifically with the archaeological resource; 2 expressed concern that limited group size would hurt educational programs. Local governments felt multiple use should be emphasized and that county master plans had been ignored, in violation of FLPMA. State agencies were concerned over specific issues, e.g., archaeology and paleontology. The Governor responded that archaeological and natural values should be protected but not at the expense of multiple use/energy development. He also expressed concern about development on State lands being hindered by the Plan and favored the concept of land exchanges to alleviate this. DOE felt that the Plan was too restrictive against exploratory drilling.

Individuals opposed to the Plan felt it was slanted against multiple use; did not adequately consider plans for oil and gas drilling, leasing, and grazing; created "de facto wilderness" or was a frivolous expenditure of taxpayers' dollars. About half the individuals supporting the Plan expressed concern over archaeological preservation; about 1/3 stated oil and gas development and ORV use should be limited, either in certain areas or totally. Lack of current commercial oil and gas field production or reserves was often referenced. Many who supported the preservation aspects of the Plan felt that there should be a minimum of recreation development, that signing and interpretive plans were too grandiose and would ruin the primitive character of the area.

Several favored a permit system to limit use even though it would be a personal inconvenience. Several favored prohibiting horses and dogs; others wanted their "well-behaved" dogs to

be allowed. Two themes related to the Plan were often mentioned: about 1/3 stated that no DOE drilling programs or nuclear waste "dumps" should be allowed, or that these weren't sufficiently addressed; about the same number referenced wilderness proposals or wilderness qualities of the area. Some comments confused the entire management plan area with Grand Gulch Primitive Area.

Comments were received from across the country and from Canada. Most individual comments (70) were received from Utahns, predominantly from the SLC area or Logan. Comments were also received from Colorado (12), other central-western States, the west coast, midwest and eastern states. Industry comments were centered on the four-corners area. Environmental groups were spread across the country, with five from Utah.

The Draft Plan was widely read. Careful analysis of specific comments will be the next step.

## APPENDIX BB - PERCENT PROPER UTILIZATION OF KEY FORAGE SPECIES

### OVERVIEW

Table ABB-1 establishes the percent proper utilization of key forage species for each grazing season and for different grazing

treatments. These proper use levels will be used to maintain and improve forage production in the San Juan Resource Area.

TABLE ABB-1

Percent Proper Use of Key Species for Each Season and for Different Grazing Treatments

Season	Graze Each Year		Graze Alternate Years <sup>b</sup>		Rest More <sup>c</sup> than a Single Season
	Mixed Seasons <sup>a</sup>	Single Seasons	Mixed Seasons <sup>a</sup>	Single Seasons	
Summer (June-August)	50	50	50	55	55
Fall (September-November)	60	60	60	65	65
Winter (December-February)	60	70	60	70	75
Spring (March-May)	25	25	50	50	50

NOTE: These proper use figures do not apply to crested wheatgrass. Proper use of crested wheat grass will be greater than that for native key species, because it can withstand heavier grazing. Proper use for crested wheatgrass, for all seasons, will be 65 percent if grazed each year, 75 percent if grazed in alternate years, and 80 percent if rested more than a single season. These figures were derived from "Grazing Intensities and Systems on Crested Wheatgrass in Central Utah: Response of Vegetation and Cattle" by Neil C. Frischknecht and Lorin E. Harris.

<sup>a</sup>Use of a pasture extends into two or more seasons.

<sup>c</sup>Refers to a more complex system (rest rotation, etc.)

<sup>b</sup>Refers to a simple deferment system (used every other year).

<sup>d</sup>When spring use is alternated and other use is not, allow 37 percent use.

Source: Partridge and Slack, 1986.

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## APPENDIX CC - KEY FORAGE SPECIES, BY GRAZING ALLOTMENT

### OVERVIEW

This appendix designates the key forage species for each grazing allotment in the San Juan Resource Area (SJRA). Key species are monitored to determine whether management objectives are being met.

### KEY SPECIES AND COMMON NAMES

Following is a list of the key species found in SJRA and their symbols.

Crested wheatgrass	AGCR
Western wheatgrass	AGSM
Big sagebrush	ARTR
Fourwing saltbush	ATCA2
Blue grama	BOGR2
Blackbrush	CORA
Green mormon tea	EPVI
Winterfat	EULA5
Curlygrass	HIJA
Prairie junegrass	KOCR
Indian ricegrass	ORHY
Sandberg bluegrass	POSE
Bottlebrush squirreltail	SIHY
Sand dropseed	SPCR
Needleandthread grass	STC04

### KEY SPECIES BY GRAZING ALLOTMENT

Following is a list of the grazing allotments in SJRA and the key species found on each allotment.

6801, Alkali Canyon	AGCR, HIJA, ORHY, ARTR
6802, Alkali Point	AGCR
4830, Bear Trap	POSE, AGSM, SIHY
4826, Big Indian	BOGR2, HIJA, SIHY
6804, Black Steer	HIJA, SPCR, ORHY, ARTR

6835, Blue Mountain	AGSM
6803, Bluff Bench	ORHY, HIJA, SPCR, EPVI
6805, Brown Canyon	HIJA
6846, Bug-Squaw	AGCR, HIJA, ARTR
6806, Bulldog	ORHY, STC04, AGCR
6808, Cave Canyon	HIJA, ORHY, SPCR, ARTR
4827, Church Rock	ORHY, HIJA, SIHY, BOGR2
6836, Comb Wash	ORHY, HIJA, ATCA2
6838, Corral	AGSM
6849, Cottonwood	HIJA, ORHY, ARTR
6811, Cross Canyon	HIJA, SPCR, ORHY, AGCR
6812, Devils Canyon	SIHY, ORHY
6813, Dodge Canyon	POSE, KOCR
6814, Dodge Point	AGCR
4804, Dry Farm	AGCR, POSE, AGSM, SIHY
4820, Dry Valley-Deer Neck	HIJA, ORHY BOGR2, EULA5
4814, East Canyon	HIJA, ORHY, SIHY SPCR, BOGR2
6815, East League	ORHY, HIJA, EPVI
4810, East Summit	AGCR, POSE, AGSM SIHY, ORHY

4811, Harts Draw	ORHY, AGCR, HIJA BOGR2, ARTR	4805, Peters Point	AGCR, ORHY, STC04, POSE
4825, Harts Point	ORHY, STC04, SPCR BOGR2, ARTR	6841, Piute Knoll	AGCR
6848, Horse Canyon	HIJA, ORHY	6842, Rogers	AGSM, KOCR
6816, Horsehead Canyon	ORHY, HIJA, POSE	6847, Roundup Corral	AGSM
4813, Hurrah Pass	HIJA, ORHY	6724, Sage Flat	AGSM, SIHY, ORHY, POSE
4815, Indian Creek	ORHY, HIJA, AGCR STC04, ARTR	6716, Sage Grouse	AGSM, SIHY, ORHY, POSE
4822, Indian Rock	SPCR, BOGR2, HIJA, ORHY	6850, Shumway Point	HIJA, ORHY
6818, Johnson Creek	POSE, KOCR	6834, Slickhorn	ORHY, HIJA, AGCR ATCA2, EPVI
6833, Lake Canyon	ORHY, HIJA, EPVI, CORA	4824, South Canyon	AGSM, ORHY, STC04
6839, Laws	HIJA, ORHY, SPCR	4823, Spring Creek	AGSM, POSE, KOCR
6819, Little Boulder	AGCR, ORHY, SPCR	4812, Spring Creek West	POSE, AGSM, ORHY
4801, Lone Cedar	ORHY, STC04, HIJA, BOGR2 ARTR, ATCA2	6828, Squaw Canyon	AGCR, ORHY
6829, Long Canyon	STC04, AGSM, ORHY	4831, State Line	POSE, ORHY, SIHY
6821, Lyman	HIJA, ORHY, SPCR	6830, Stevens	HIJA, ORHY, SPCR
4819, Mail Station	HIJA, SPCR, BOGR2 ATCA2, ARTR	4818, Summit Canyon	POSE, AGSM, SIHY, ORHY
6822, McCracken	HIJA, ORHY, SPCR, EPVI	6831, Tank Bench- Brushy Basin	ORHY, HIJA, ATCA2, EPVI
6823, Montezuma Canyon	HIJA, SPCR, AGCR STC04, ARTR	4802, Tank Draw	ORHY, HIJA, BOGR2 ATCA2, ARTR
4806, Monticello Cowboy	ORHY, BOGR2 STC04, EULA5	6844, Texas-Muley	ORHY, STC04, AGCR ATCA2, ARTR
6825, Monument	AGCR, AGSM, HIJA KOCR, ARTR	4817, Upper East Canyon	POSE, AGSM
6824, Owens Dugout	HIJA, SPCR	4803, Vega Creek	POSE, AGSM, ORHY
6845, Pearson Point	AGCR	6832, Verdure Creek	SPCR, HIJA, ATCA2
6827, Perkins Brothers	ORHY, HIJA, ATCA2	6837, White Canyon	ORHY, HIJA, AGCR ATCA2, EPVI
4807, Peters Canyon	HIJA, ORHY, SPCR, SIHY	6840, White Mesa	AGCR, ORHY, HIJA, ARTR

## APPENDIX DD - WILD AND SCENIC RIVER PRELIMINARY STUDY

### OVERVIEW

This appendix presents the results of the Bureau of Land Management's (BLM's) preliminary study of three potential wild and scenic river segments in San Juan Resource Area (SJRA): the Colorado River, the White Canyon drainage, and the San Juan River (figure I-4). National Park Service (NPS) identified these three segments in the 1982 Nationwide Rivers Inventory (NRI) [NPS, 1982] as potential additions to the wild and scenic rivers system under the Wild and Scenic Rivers Act (16 U.S.C. 1271).

### STUDY PROCESS

The wild and scenic river study process contains three steps: (1) to determine if potential river segments are eligible for wild and scenic river designation; (2) to determine the potential classification of the segment as wild, scenic, recreational, or any combination; AND (3) to conduct a suitability study to determine if the segment is suitable for designation to the wild and scenic rivers system. The third step requires preparation of a legislative environmental impact statement (EIS).

The study procedures are found in 1982 guidelines from the U.S. Departments of Agriculture and Interior [Federal Register Vol. 7, No. 173, September 7, 1982]. BLM manual section 1623.4 contains requirements for studying NRI segments in the planning process to determine potential wild and scenic status; it also allows for the resource management plan (RMP) to propose other river segments, not included in the NRI, for study.

This appendix fulfills the first two steps for the three study segments in SJRA. The prelimi-

nary study through this RMP/EIS will determine eligibility and potential classification for the BLM-administered portions of the three NRI segments in SJRA. Because all three segments flow through federal lands administered by different agencies, and because joint study of these segments could not be accomplished prior to publication of this final EIS, the suitability study and legislative EIS requirement has been deferred. The studies are scheduled to be completed within 5 years after completion of the final RMP; this does not necessarily include the time required to prepare, distribute, and review the subsequent legislative EIS.

After completion of the study, the Secretaries of the Interior and of Agriculture (where NF lands area involved) report to the President whether a segment is suitable for designation. The President recommends to Congress whether a segment should be designated. Only Congress can designate a river segment to be included in the wild and scenic river system.

### STUDY CRITERIA

To be eligible for inclusion in the national system, a study segment must be free-flowing, and the river and its adjacent land area must possess at least one outstandingly remarkable value. Free-flowing means unimpounded. The flow of water within the river is not a criterion; however, it must be sufficient to sustain or complement the outstandingly remarkable values. The study corridor, at a minimum, includes the river and the adjacent lands to one-quarter mile from the river bank. A corridor of greater width may be studied if inclusion could facilitate riverine-resource management.



The potential classification of a river segment is based on the condition of the river and adjacent lands as they exist at the time of the study. The Act specifies three classification categories (wild, scenic, and recreational) for eligible rivers.

To be classified as wild, a river segment must be free of impoundments. The area must show little evidence of human activity and be generally inaccessible except by trail. The watersheds or shorelines must be primitive, with no structures or modifications of the river course. The water must be unpolluted.

To be classified as scenic, a river segment must be free of impoundments. The area must not show substantial evidence of human activity. It may be accessible by roads in places or have occasional bridges. The watershed or shoreline must be largely primitive and undeveloped.

To be classified as recreational, a river segment may have had impoundment or diversion in the past if it remains generally natural in appearance. It may be readily accessible by road or railway or be crossed by bridges. It may have some development along the shoreline or show substantial evidence of human activity.

#### **INTERIM MANAGEMENT**

BLM guidance provides that a river segment be afforded adequate interim protection after it is determined eligible for inclusion in the wild and scenic river system until Congress acts to accept or reject the segment. The various alternatives analyzed in this RMP/EIS would provide varying degrees of protection for the three river segments. Under the revised preferred alternative, the San Juan River corridor would fall within the San Juan River SRMA, and the White Canyon drainage would run along the proposed Scenic Highway Corridor ACEC. These areas would be segregated from mineral entry and leased with no-surface-occupancy stipulations; surface disturbance would be minimized, and the river corridor would be managed as visual resource management (VRM) class I. All riparian zones within the study corridors would have special management conditions to prevent surface occupancy within the riparian habitat.

Under the current situation, and under any alternative selected for the RMP, projects proposed for the river study corridors would have site-specific National Environmental Policy Act (NEPA) documentation prepared. Through the NEPA document, potentially adverse impacts to the eligible study segments would be identified, and mitigation would be developed to lessen these to an acceptable level (including denial of a project).

#### **COLORADO RIVER**

##### **INTRODUCTION**

The BLM portion of the Colorado River segment, from the north line of public land below the San Juan County line to the north boundary of Canyonlands National Park (NP), is determined eligible for inclusion into the wild and scenic river study with a potential classification of wild.

The Colorado River potential wild and scenic river segment in SJRA identified in the NRI is the portion from the San Juan/Grand County line to the Canyonlands NP southern boundary. At the county line, the river flows through a block of state land. The river has been adjudicated in this area as navigable, which means that the state also owns the river bed. The boundary line between SJRA and Grand Resource Area runs down the center of the river. SJRA administers public land along the south bank of the river for about 13 miles.

This segment was identified in the NRI as having outstandingly remarkable scenic, recreational, geologic, fishery, and wildlife values. It is described as a large river flowing through deep red sandstone canyons, where geologic processes are highly visible, and which provides habitat for threatened or endangered (T/E) species (Colorado squawfish, humpback chub, peregrine falcon and bald eagle).

##### **REGIONAL SETTING**

The Colorado River begins on the western slope of the Rocky Mountains above the town of Granby, Colorado. It flows generally southwest for 1,450 miles through Colorado, Utah, Arizona, and

California before entering the Gulf of California. This study segment is located in northern San Juan County in southeastern Utah.

#### ADMINISTRATION

The river corridor in the study segment is administered mainly by three agencies: BLM, NPS, and the State of Utah. In this study segment, a portion of the river (from the start of the segment to the confluence with the Green River in Canyonlands NP) has been determined to be navigable; therefore, the State of Utah controls the river bed and use on the river. Activities outside the river bed are controlled by the land-managing agency and private-land owners. The State controls the first 2 miles of the river corridor, BLM the next 6 miles. The river then flows for 1 mile through private land. The next 3.5 miles are BLM; for the next 3 miles, the right bank of the river is NPS and the left bank is BLM. The river then flows into Canyonlands NP for the remaining 45 miles of the study segment.

#### RIVER DESCRIPTION

This preliminary study deals only with the BLM-administered portion of the study segment in SJRA and the private lands within that portion. Generally, adjacent lands are similar in character to the BLM portion.

The segment in this study is from the south line of the state land at the county line to the Canyonlands NP boundary. Within this segment is 1 mile of private land. The width of the study corridor on public land in SJRA is 0.25 mile on each side of the river or to the top edge of the inner canyon walls, whichever is greater.

The Colorado River in this section is a wide, slow-moving river with large alluvial bottoms on the insides of most turns. The sandstone inner canyon varies from 40 to over 200 feet high at the NP boundary. An outer canyon (outside the study corridor, but within the viewshed) reaches up to 2,000 feet above the river, its rims as much as several miles from the river.

Streamside vegetation is mainly tamarisk, with some willows and cottonwoods. On the bench

above the inner canyon, blackbrush, shadscale, and cactus are common. Shoreline developments in this segment are limited to roads. Graded dirt county roads occur on both sides of the river, on the bench above the inner canyon. These roads are generally not within the study corridor and are generally not visible from the river, but do come within the 0.25-mile corridor in several locations. A few two-track spur routes depart from these roads and travel to the bottoms along the river but do not detract from the natural setting. The highly-eroded landscape provides an outstanding scenic setting and an opportunity for geologic interpretation.

In this section of the Colorado River, the main water-quality concern related to primary recreational contact is bacteriologic concentrations. U.S. Geological Survey (USGS) data show occasional violations of the fecal coliform standard for the Colorado River. Highly-contaminated overland flows associated with storm events may result in nonpoint fecal contamination and an unacceptable status for full-body-contact recreation. The river appears to be acceptable for primary-contact recreation during the summer nonstorm-flow period. There are also occasional violations of the warm-water fisheries standards for zinc and phosphate and a general standard for ammonia. High concentrations of ammonia and phosphate require more detailed investigations for criteria specific to a particular stream before action is taken based on standards. Zinc could result from natural erosional processes or could be delivered from industrial wastes.

#### ELIGIBILITY

The Colorado River in this study segment is considered to be free-flowing, as there are no impoundments or other modifications of the waterway. It contains outstanding scenic and geologic values, which contribute to the outstanding recreational value of the river. The Colorado River in this study segment is determined eligible for inclusion into the wild and scenic rivers system.

#### POTENTIAL CLASSIFICATION

Based on existing conditions, the Colorado River segment is found to potentially meet the wild

criteria. It is free of impoundments, essentially primitive, and generally inaccessible except by trail; it meets water-quality standards except where these are exceeded by natural conditions.

## **WHITE CANYON**

### **INTRODUCTION**

White Canyon is determined eligible for inclusion into the wild and scenic river system with a potential classification of wild.

The White Canyon segment listed in the NRI is from Lake Powell to its source. The segment was identified in the NRI as having outstandingly remarkable scenic and geologic values. It is described as an excellent example of an intermittent stream.

### **REGIONAL SETTING**

The White Canyon drainage, located in southeastern Utah, begins at the Bear's Ears in Manti-La Sal NF and drains westerly crossing first public land, then Natural Bridges NM. It then runs northwesterly across public land until it enters Glen Canyon NRA, where it turns southwest until it meets Lake Powell.

### **ADMINISTRATION**

Four agencies manage lands within the White Canyon study corridor. The first 3 miles are managed by the U.S. Forest Service (USFS); the next 2.5 miles by BLM; the next 1.5 miles by the State of Utah. The stream then drains for 7 miles through NPS-administered Natural Bridges NM and crosses 45 miles of public lands, within which 5 state sections account for about 4.5 miles of study corridor. The drainage then enters NPS administered lands in Glen Canyon NRA.

### **RIVER DESCRIPTION**

This preliminary study deals only with the BLM-administered portion of the study segment in SJRA. Generally, adjacent lands are similar in character to the BLM portion.

The study corridor on public lands is 0.25 mile on each side of the streambed, or to the top of

the canyon wall, whichever is greater. The public-land study segment is approximately 43 miles long and can be divided into two portions based upon land status: from the NF boundary to the NM east boundary; and from the NM west boundary to the NRA. State sections lie within both portions.

The upper portion of White Canyon is fairly wide-open as it leaves the NF, with an inner canyon less than 40 feet deep. The canyon gradually deepens to about 200 feet and 0.25 mile wide. Vegetation in this portion consists mainly of a pinyon-juniper woodland on the side slopes. Stream-side vegetation includes willows and occasional cottonwoods. As the canyon approaches Natural Bridges NM, slickrock begins to dominate the side slopes, and the amount of vegetation decreases.

Several archaeological sites are found adjacent to the drainage near Natural Bridges NM. The only improvements in this portion are San Juan County Road 254, a graded dirt road, which crosses White Canyon about 0.5 mile below the USFS boundary.

The lower portion of the canyon narrow and winding, with sandstone walls ranging from 100 to 400 feet high. Vegetation in the canyon bottom includes willows, tamarisk, and patches of cottonwoods. On the side slopes and benches in the upper third of this portion, vegetation is typical of a pinyon-juniper woodland. Below that point, the vegetation fades into a more desert-like environment with blackbrush, sagebrush, and scattered juniper trees. Within this portion are numerous archaeological sites, several of which are believed eligible for listing on the National Register of Historic Places. The cultural and scenic values provide outstanding recreation opportunities. Improvements in this portion consist of three county-road crossings (all graded dirt) and three sections of fencing, two of which are on the mesa adjacent to the canyon. The other is in the canyon at one of the road crossings.

White Canyon is an intermittent stream with water flowing during spring runoff or rainy periods. It is free-flowing, however; there are no impoundments or diversions in this segment.

Water quality data are not available, but water quality is expected to be good.

The main water-quality concern related to primary recreational contact is bacteriologic concentrations. Very limited data for White Canyon, collected by BLM, attest to occasional high concentrations of total and fecal coliform colonies. Highly-contaminated overland flows associated with storm events may result in nonpoint fecal contamination and an unacceptable status for full-body-contact recreation. The river appears to be acceptable for primary-contact recreation during the summer nonstorm-flow period. Although the White Canyon drainage is dry for an extended period each year, warm-water fishery standards may still be relevant, since deep pools retain water throughout the dry period and support some small fish. The limited data available do not reveal any violations of State warm-water fishery standards.

#### ELIGIBILITY

White Canyon in this study segment is considered free-flowing, as there are no impoundments or other modifications of the waterway. It also contains outstanding scenic and archaeologic values, which contribute to the canyon's outstanding recreation value. White Canyon in this study segment is determined to be eligible for inclusion into the wild and scenic rivers system.

#### POTENTIAL CLASSIFICATION

Based on existing conditions, the segment is found to potentially meet the wild criteria. It is free of impoundments, essentially primitive, and generally inaccessible except by trail; it meets water-quality standards except where these are exceeded by natural conditions.

#### SAN JUAN RIVER

##### INTRODUCTION

The San Juan River, from the bridge on U.S. Highway 191 at Bluff to the Glen Canyon NRA boundary, is determined eligible for inclusion into the wild and scenic river system. Portions of the river were determined to have the following potential classifications: segments 1 and 3, wild; segment 2, recreational.

The San Juan River segment identified in the NRI is from Lake Powell to the bridge on U.S. Highway 160 (now 163), which crosses the river at Mexican Hat (river mile 27.5). Through the San Juan RMP/EIS, BLM also recommends study of the adjoining segment from the bridge on U.S. 191 (river mile 0, just below Sand Island) to river mile 27.5.

The San Juan River was identified in the NRI as having outstandingly remarkable scenic, recreational, and geologic values. The segment is described as a V-shaped canyon 1,000 to 1,500 feet deep at the lower end, with unique geologic features visible; having high-quality rafting opportunities in early summer; and providing habitat for bald and golden eagles.

#### REGIONAL SETTING

A major tributary of the Colorado River, the San Juan River rises on the western slope of the San Juan Mountains north of Pagosa Springs, Colorado. From the mountains, the San Juan River flows south into Navajo Reservoir in northwestern Rio Arriba County, New Mexico. At the Navajo Dam, the river enters San Juan County, New Mexico, where it runs westerly 140 miles and then loops north to touch the Four Corners area, continuing across San Juan County in southern Utah and flowing into Lake Powell.

#### ADMINISTRATION

The river corridor in the study segments is mainly administered by three agencies: BLM, NPS, and the Bureau of Indian Affairs (BIA). From the U.S. Highway 191 bridge to the Glen Canyon NRA boundary, SJRA manages the river and adjacent land north of the river median, except for 1.5 miles of private land along the river near Mexican Hat and 0.125 mile of shoreline (about 80 acres in the corridor), which is private land near Butler Wash. BIA administers the shoreline south of the river median as part of the Navajo Reservation. NPS administers the river north of its median and downstream from the Glen Canyon NRA boundary; BIA administers the river south of the median line until the river reaches an elevation of 3,720 feet in Glen Canyon NRA. Below that point, NPS administers both sides of the river study segment.

## RIVER DESCRIPTION

This preliminary study deals only with the BLM-administered portion of the study segments and the private lands within that portion. Generally, adjacent lands are similar in character to the BLM portion.

The public-land study corridor is 0.25 mile on each side of the river or to the top edge of the canyon walls, whichever is greater. The river segments in this study run from the U.S. Highway 191 Bridge (river mile 0) to the Glen Canyon NRA boundary (river mile 45). The NRI segment ended at the U.S. Highway 163 highway bridge at Mexican Hat (river mile 27.5).

The main water-quality concern related to primary recreational contact is bacteriologic concentrations. USGS data show occasional violations of the fecal coliform standard for the San Juan River. Highly-contaminated overland flows associated with storm events may result in nonpoint fecal contamination and an unacceptable status for full-body-contact recreation. The river appears to be acceptable for primary-contact recreation during the summer nonstorm-flow period. There are also occasional violations of the warm-water fisheries standards for zinc and phosphate and a general standard for ammonia. High concentrations of ammonia and phosphate require more detailed investigations for criteria specific to a particular stream before action is taken based on standards. Zinc could result from natural erosional processes or could be delivered from industrial wastes.

The study area is approximately 45 miles long and can be divided into three segments based upon shoreline developments and land status:

- 1 U.S. Highway 191 Bridge (river mile 0) to river mile 26
- 2 river mile 26 to river mile 28
- 3 river mile 28 to Glen Canyon NRA (river mile 45)

### Segment 1

In the first 9 miles, San Juan River is a wide, braided stream flowing through a mile-wide

canyon with sandstone cliffs up to 300 feet high. Streamside vegetation consists mainly of cottonwood, willow, Russian olive, and tamarisk. Basically inconspicuous shoreline developments consist of two irrigation pumps, a corral, a fence, and a metal hopper that remains from an abandoned placer operation. Access to the river is limited to an unimproved road that runs down Comb Wash and along the river for about 2 miles. This road is generally not visible from the river because it is set back and screened by streamside vegetation. This portion of the river contains numerous remains of the Anasazi culture, including petroglyphs, pictographs, and cliff dwellings.

Over the next 11 miles, the river flows through the Lime Ridge and Raplee Anticlines, which produce a narrow canyon up to 1,500 feet deep, less than 0.5-mile wide at the top, and about 150 feet wide at river level. Streamside vegetation consists of shrubs, such as blackbrush, sagebrush, and a few scattered juniper.

Shoreline developments include the ruins of several old rock cabins, probably built around 1900 during the gold rush and a now-impassible road, constructed in the 1950s to drill a well into Soda Basin, which follows the river for about 2 miles and still shows evidence of rock cribbing. These developments are of historical interest rather than distractions from the river experience. This portion of the river also contains significant scenic and geologic values. There is no motorized river access.

The 6 miles of river remaining in this segment flow through a narrow sandstone canyon up to 400 feet deep. Tamarisk and willow are dominant near the river, with desert shrubs in the background. Developments in this section include the Soda Basin Road (2 miles) and Mexican Hat Rock Road (1 mile), which provide motorized access along the river. Streamside vegetation usually hides these roads from the river; however, vehicles can be seen occasionally. This section of river switches back to Raplee Anticline, providing outstanding scenic and geologic values because of the unique erosional patterns and multi-colored rock strata.

### Segment 2

Segment 2 is similar to the third portion of segment 1 in geology and vegetation. This section does include substantial shoreline improvements, including oil wells, storage tanks, and a motel, most of which are on private land. Public lands comprise only 0.5 mile of the 2-mile length. Shoreline improvements on public land include a sign at the Mexican Hat launch ramp and several 4-foot-high oil-pump jacks. This segment is critical to river recreation management, as it provides recreational launching and take-out access.

### Segment 3

Segment 3 is similar in width, vegetation, and geology to the middle portion of segment 1. It covers about 17 miles of public land. The river enters a canyon cut through the Monument Upwarp with cliffs up to 1,400 feet high. Developments in this portion consist of two trails and several historically-significant rock cabins built in the 1890s. This portion of the canyon also provides outstanding scenic and geologic values.

### ELIGIBILITY

The San Juan River in these study segments is considered free-flowing, as there are no impoundments or other modifications of the waterway. It also contains outstanding scenic, geologic, and archaeologic values, which contribute to the river's outstanding recreation value. The San Juan River in these study segments (U.S. Highway 191 Bridge to Glen Canyon NRA) is determined eligible for inclusion in the wild and scenic rivers program.

### POTENTIAL CLASSIFICATION

Based on existing conditions, segments 1 and 3 are found to potentially meet the wild criteria. They are free of impoundments, essentially primitive, and generally inaccessible except by trail; they meet water-quality standards except where exceeded by natural conditions. Segment 2 is found to potentially meet the recreational criteria because of its substantial evidence of human activity and ready motorized access.

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